

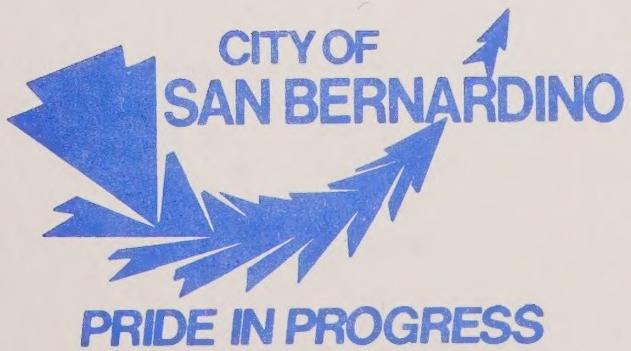
City of San Bernardino General Plan

ADOPTED JUNE 2, 1989

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CITY OF SAN BERNARDINO GENERAL PLAN

ADOPTED, 2 JUNE 1989

Prepared By:

ENVICOM CORPORATION in association with
DKS Associates • Albert A. Webb Associates • Natelson-Levander-Whitney •
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Land Use Plan

1"=2,000' in
Rear Pocket and
1"=1,000'
Available at
City Hall
Department of
Planning and
Office of the
City Clerk

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INTRODUCTION

A. ROLE AND PURPOSE OF THE GENERAL PLAN

The General Plan is the foundational policy document of the City of San Bernardino. It defines the framework by which the City's physical and economic resources are to be managed and utilized over time. Decisions by the City in regard to the use of its land, design and character of buildings and open spaces, conservation of existing and provision of new housing, provision of supporting infrastructure and public and human services, protection of environmental resources, protection of residents from natural and man-caused hazards, and allocation of fiscal resources are guided by the Plan. The General Plan acts to clarify and articulate the City's intentions with respect to the rights and expectations of the general public, property owners, and prospective investors and business interests. Through the Plan, the City can inform these groups of its goals, policies, and development standards, thereby communicating what is expected of the private sector to meet its objectives.

B. STATE REQUIREMENTS

California State law (Government Code Section 65300) requires that each city prepare and adopt a comprehensive, long-term general plan for its development. It must contain seven elements including land use, circulation, housing, conservation, open space, noise, and safety. In addition, it permits the inclusion of other elements which address specific needs and objectives of the City.

The content of each element is prescribed by the State of California General Plan Guidelines, published by the Office of Planning and Research (OPR). Specific requirements for the Housing Element are defined by the State Department of Housing and Community Development (HCD), Title 25, and the Noise Element are defined by the Office of Noise Control, California Department of Health. The contents of optional elements are to be determined by a city based on its needs and objectives.

Each element must contain background data and information, the identification of significant issues, and policy and programs addressing the resolution of these issues. "Policy" is broadly defined to include goals, objectives, policies and standards.

California State law, further, requires that the day-to-day decisions of a city should follow logically from and be consistent with the General Plan.

C. ORGANIZATION AND CONTENT OF THE GENERAL PLAN

The City of San Bernardino General Plan contains each of the seven elements required by State law. Six "permissive" elements have been prepared to reflect specific issues and objectives of the City: Urban Design, Historical Resources, Economic Development, Infrastructure/Utilities, Public Services, and Parks and Recreation.

As defined by the State General Plan Guidelines, the mandated and permissive elements often overlap in subject matter and policy. To avoid potential redundancy and confusion and provide a cohesive and consistent approach to issues, the City of San Bernardino General Plan has been organized by resource topic rather than each of the mandated and optional elements. The following table indicates the organization of topics of this Plan and the corresponding State-mandated and optional elements:

<u>San Bernardino General Plan Topics/Elements</u>	<u>Mandated Element</u>	<u>"Permissive" Element</u>
Chapter One: Community Development		
1.0 Land Use and Urban Design	Land Use	Urban Design
2.0 Housing	Open Space	
3.0 Historical Resources	Housing	Historical Resources
4.0 Economic Development		Economic Development
5.0 Urban Design for Public Open Spaces		Urban Design
Chapter Two: Infrastructure and Community Services		
6.0 Circulation	Circulation	
7.0 Utilities	Circulation	Infrastructure/Utilities
8.0 Public Facilities and Services	Public Safety	Public Services
9.0 Parks and Recreation	Open Space	Parks and Recreation
Chapter Three: Environmental Resources		
10.0 Natural Resources	Conservation	
11.0 Energy and Water Conservation	Open Space	
	Conservation	
Chapter Four: Hazards		
12.0 Geologic and Seismic	Public Safety	
13.0 Hazardous Materials and Uses	Open Space	
14.0 Noise	Public Safety	
15.0 Wind and Fire	Land Use	
16.0 Flooding	Noise	
	Public Safety	
	Public Safety	
	Land Use	
	Open Space	

Each General Plan topic/element contains the following subsections:

- Overview of Plan Policy
- Background Data and Analyses
- Policy

- (1) Overview of Plan Policy
- (2) Goals

The ultimate purpose of an effort stated in a way that is general in nature and immeasurable.

- (3) Objectives

A measurable goal.

- (4) Policies

A specific statement guiding action and implying clear commitment.

d. Implementation Programs

Actions, procedures, or techniques that carry out the general plan policy through implementing a standard (a specific, often quantified guideline defining the relationship between two or more variables).

The programs contained in the City of San Bernardino Draft General Plan encompass a broad range of actions which are defined to implement the policies of each element. These include:

- (1) Programs which are currently being implemented by the City and will be continued;
- (2) Modifications of existing programs, with little or no fiscal impact on the City;
- (3) Proposed new programs which can be implemented with little or no budget expenditures by the City; and
- (4) Proposed new programs which will require additional City budget expenditures (e.g., additional studies/plans and personnel).

Of these, some are mandated by the state law (e.g., zoning, CEQA review, and housing programs). Others account for plan policies which, while they may be contained in a state-mandated element, are not necessarily mandated actions by the City. Unless otherwise required by state law, each and every implementation program listed in this General Plan is not to be construed as mandatory but only directory for the City in accomplishing the goals, objectives and policies of this General Plan.

Within one year of the date of the adoption of this General Plan, the City shall establish and approve a comprehensive strategy to implement the programs contained in this plan. This should include:

- (1) Feasibility of the program;
- (2) Alternative programs;
- (3) The identification of priority programs;
- (4) Responsibility for implementation;
- (5) Timing/Schedule for implementation;
- (6) Costs of implementation; and
- (7) Revenue sources.

The timing of implementation shall account for mandatory requirements of the state, funding availability, and defined priorities as established by the Mayor and Council.

One or more policies are defined for every objective. Every policy has a corresponding implementation program.

D. RELATIONSHIP AMONG GENERAL PLAN ELEMENTS

As a comprehensive strategy for the management of a city's diverse physical, economic, and social resources, there is a high level of interrelationship among the topics and elements of the General Plan. The Land Use and Urban Design Element provides for the types, density/intensity, design, and distribution of development. The Housing Element provides for the manner in which existing housing will be conserved and new housing will be produced, in context of the areas permitted for development by the Land Use Element. The Economic Development Element provides for the manner in which the uses accommodated by the Land Use Element will be attracted to the City and maintained at a high level of productivity over time. The Urban Design for Public Open Spaces Element provides for the type and design of open spaces which are the linkages between private and public buildings. The Circulation and Utilities Elements identify the types of and specify the means by which public infrastructure will be provided to support the uses accommodated by the Land Use Element. The Public Facilities and Services and Parks and Recreation Elements define the range of services needed to support the City's residents, businesses, and visitors. The Environmental Resources Element (Natural Resources and Energy and Water Conservation) define policy for the protection of significant resources in context of new land use development. The Environmental Hazards Element (Geologic and Seismic, Hazardous Materials and Uses, Noise, Wind and Fire, and Flooding) provides for the protection of humans and uses from the adverse effects of natural and man-caused hazards.

E. MONITORING AND UPDATE OF THE GENERAL PLAN

The State recommends that the short-term portions of the General Plan be reviewed annually and revised as necessary to reflect the availability of new implementation tools, changes in funding sources, and the results of monitoring the effectiveness of past decisions. The City's Planning Commission is required to report annually to the Mayor and Common Council on the status of the Plan and progress made in its implementation. The Housing Element must be reviewed and updated at least every five years. The State also recommends that the entire plan be thoroughly reviewed at

least every five years and revised as necessary to reflect new conditions, local attitudes, and technological advances. Though not required of a Charter City, it is recommended that Plan amendments be limited to a maximum of four times per year, consistent with requirements of a General Law City.

F. RELATIONSHIP TO OTHER DOCUMENTS

The Mayor and Council have adopted, through ordinance or resolution, various land use documents which bear a relationship to the General Plan. Those documents fall into one of two groups: (1) documents which are incorporated by reference into the Plan, and (2) documents superseded by the Plan. Table 1 lists the affected documents and explains their status upon adoption of this Plan.

Some documents are incorporated by reference. In the case of specific plans or overlay districts which have been, or will hereinafter be adopted by the City, the Land Use Plan Map is to be amended to reflect the locational boundaries of the area identified by the numerical reference, e.g., "Specific Plan 82-1." In addition, when a new specific plan or overlay district would modify the General Plan, an amendment to the General Plan would need to be approved at the same time in order to maintain consistency.

Each of the documents is incorporated into and made a part of this Plan by reference and are available for review in the Planning Department of the City of San Bernardino, City Hall, 300 North "D" Street, San Bernardino, California.

G. PLANNING AREA

The City of San Bernardino is located approximately 60 miles east of the City of Los Angeles, at the southern base of the San Bernardino Mountains. The City is abutted by the Cities of Rialto to the west, Colton to the southwest, Loma Linda to the south, Redlands to the southeast, and Highland to the east. The City's northern limit is defined by an irregular line which runs along the lower elevations of the San Bernardino Mountains and is approximately coterminous with the San Bernardino National Forest boundary. To the northwest, the City extends to the unincorporated Devore community, and is abutted by the Cajon Creek Wash. Within these boundaries are a number of small unincorporated County "islands." Figure 1 depicts the City's regional location and Figure 2 depicts its boundaries.

The lands adjacent to the City considered by the Local Agency Formation Commission (LAFCO) to represent San Bernardino's "probable ultimate physical boundaries and service area" (Sphere of Influence) are depicted in Figure 2. Generally, these include the Muscoy area south of Cable Creek, Cajon Creek Wash area to the north to the Interstate 15-215 interchange, East Twin Creek Wash area, and unincorporated County islands in

TABLE 1

Relationship to Other Plans and Documents

<u>Title of Document</u>	<u>Incorporated by Reference</u>	<u>Superseded</u>	<u>Comments</u>
General Plan EIR	0		Certified June 2, 1989 and updated as needed.
Technical Background Report	0		Published February, 1988. To be updated as needed.
Development Code	0		Not yet adopted.
Interim Policy Document		0	Published May, 1988.
General Plan		0	Published 1964.
State College Area Plan		0	Published 1964. Various amendments.
East San Bernardino Highland, East Highlands Community General Plan		0	Published 1976. Various amendments.
Verdemont Area Plan	0 (portion)	0 (portion)	Published 1986. Section V "Standards" pp. 95-156 incorporated by reference. Balance is superseded.
Highland Hills Specific Plan	0		
Central City South Overlay District	0		
Redevelopment Plans	0		Various Plans adopted from 1958 to 1986. General Plan will incorporate the land use provisions of the Redevelopment Plans as now existing and as may from time to time be amended; provided that in the event of conflicts as to the land use provisions the General Plan (and not the Redevelopment Plan land use provisions) shall control.

FIGURE 1



Compiled by: Envicom Corporation

REGIONAL LOCATION

ENVICOM CORPORATION

FIGURE 2 PLANNING AREA JURISDICTIONS

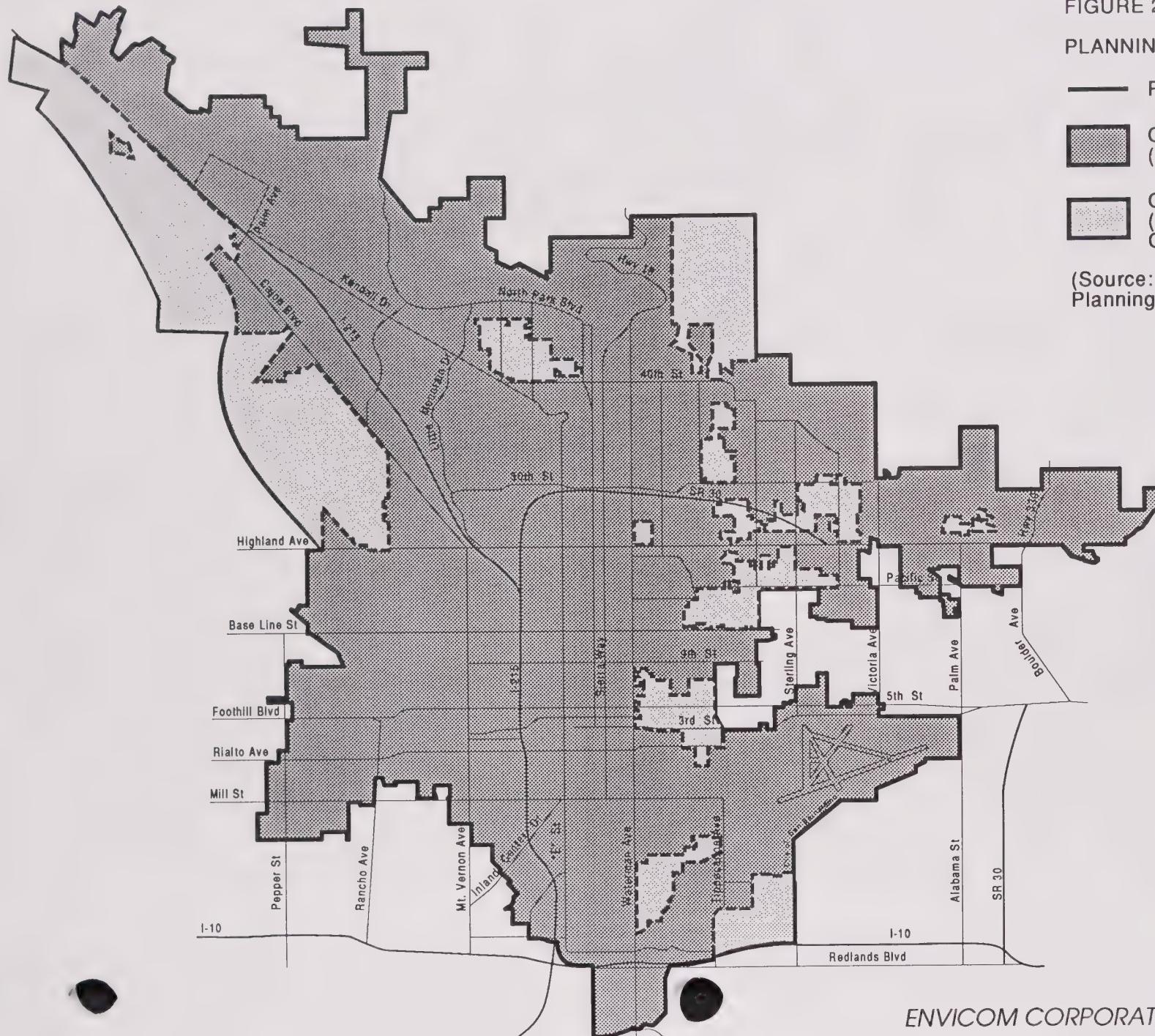
— Planning Area Boundary

The logo consists of a black square containing a white grid pattern.

City of San Bernardino
(Incorporated Area)

 County of San Bernardino
(Unincorporated Area within
City Sphere of Influence)

(Source: City of San Bernardino
Planning Department)



the eastern and southeastern portions of the community. The recently incorporated City of Highland is not encompassed by the City's Sphere of Influence.

The updated City of San Bernardino General Plan defines policy for the lands within the corporate limits and as a statement of intent to guide development in lands to be annexed in the future in the Sphere of Influence. Cumulatively, these areas are referred to as the "planning area" in the Plan.

Approximately 64 square miles are contained in the planning area, including 55 square miles in the City and nine square miles in the unincorporated portions of the Sphere of Influence.

H. OVERVIEW AND HISTORY OF THE PLANNING PROGRAM

In late 1986, the City of San Bernardino, at the direction of Mayor Evelyn Wilcox, initiated a comprehensive update and revision of its General Plan. This update was needed to account for the considerable passage of time since the Plan's preparation and adoption of subsequent elements which had not been integrated into a single, unified plan document. The extended time resulted in inconsistent data, policies and programs, and lack of conformance with community objectives. Current conditions and issues, largely, were determined by the City to be inadequately addressed. The "substance" of the Plan, its policies and programs, varied substantially in their specificity, reflection of current issues, and adherence to State plan guidelines and legislation. Many of the Plan's policies were vague and provided inadequate guidance or criteria for meaningful land use decisions. Exacerbating these deficiencies were a zoning ordinance and Redevelopment Plans which were not clearly linked, as required, to General Plan "policy."

Key milestones in the formulation of the updated General Plan are as follows:

- November 1986 - Mayor Wilcox directs the Planning Department to prepare a work program for the General Plan revision.
- February 16, 1987 - Mayor and Common Council instruct the Planning Department to proceed with the General Plan revision.
- April 6, 1987 - Mayor and Common Council adopt an interim control ordinance on residential projects for 45 days.
- April 27, 1987 - City requests an extension of the deadline to complete the General Plan from the State Office of Planning and Research (OPR).
- June 11, 1987 - OPR approves the City's request for a deadline extension for a one-year period with conditions.

- July, 1987 - Mayor and Common Council appoint a 35-member Citizens Advisory Committee (CAC) to provide input to the General Plan work program.
- August 11, 1987 - City enters into a contract with Envicom Corporation and its subcontractors to prepare the General Plan.
- October, 1987 - Initiation of CAC goals identification and formulation of "visions" maps.
- January, 1988 - CAC land use allocation mapping.
- January 14, 1988 - OPR removes certain restrictions on development in portions of the City.
- February, 1988 - The General Plan Technical Background Report is published.
- February 5, 1988 - OPR removes certain restrictions on development in northern areas of the City.
- March 1, 1988 - The Alternative Land Use Plans Working Paper is published.
- April-May, 1988 - Public hearings and deliberations on the alternative land use plans are conducted by the CAC, Planning Commission, and Mayor and Common Council.
- May 23, 1988 - The Interim Policy Document and Preferred Land Use Alternative are adopted by the Mayor and Common Council.
- June 9, 1988 - OPR approves a second time extension for the adoption of the General Plan and removes development restrictions; permitting development in accordance with the Interim Policy Document.
- December 7, 1988 - Fundamental Land Use Issue Policy Statements approved by the CAC.
- December 13, 1988 - Fundamental Land Use Issue Policy Statements approved by the Planning Commission.
- December 16, 1988 - Fundamental Land Use Issue Policy Statements approved by the Mayor and Common Council, with exceptions.
- January 30, 1989 - Exceptions to Fundamental Land Use Issue Policy Statements approved by the Mayor and Common Council.
- March, 1989 - Draft General Plan and Environmental Impact Report published.

- June 2, 1989 - General Plan adoption and Environmental Impact Report certification by Mayor and Common Council

I. COMMUNITY PARTICIPATION IN THE PLAN'S PREPARATION

The preparation of the City of San Bernardino General Plan involved an extensive program of community involvement. Its central focus was a 35-member advisory committee composed of individuals representing the diverse array of interests and residential locations in the City. The Committee (CAC) participated in excess of 70 meetings during the formulation of the Plan, beginning in July, 1987. Members convened as a committee-of-the-whole and as subcommittees. During September, 1987 and January and February, 1989, the CAC conducted meetings to solicit broad community input. Additionally, at each CAC meeting, non-members were afforded opportunity to comment on discussion items.

As another means of participation, City staff and the consultant have discussed planning issues and policies at meetings with local neighborhood associations and business organizations.

GENERAL PLAN RELATIONSHIP TO SAN BERNARDINO'S QUALITY OF LIFE

A pervasive concern throughout the preparation of the Draft General Plan has been the need for and establishment of means to achieve a higher quality of life for San Bernardino's residents. This goal has been an underlying theme in the public discussion and debate on potential City policies and programs. It reflects a consensus that there are current deficiencies in or conditions which threaten the quality and character of the City's physical, economic, and social environments and that there needs to be a conscientious and aggressive strategy to remedy these. Many cite the City's perceived lack of a strong, positive image in the southern California region as a manifestation of these problems.

Among the contributing factors which have been identified are the absence of a strong sense of "community" or "special place"; lack of a vital and definable downtown, which can be distinctly identified in the region; lack of a variety of key activity areas providing for the needs of residents and opportunities for social interactions; general pattern of endless automobile oriented commercial strips of minimal architectural and design quality which inhibit people gathering and activity; pockets of deteriorating residential neighborhoods and mixed residential densities; poor quality of the design and construction of many multi-family condominiums and apartments; loss of historic residential neighborhoods and culturally significant building and sites; loss of open spaces; extreme grading alteration of natural topography, and loss of important habitat as development extends into the hillsides; insufficient employment opportunities for existing residents and to attract a diverse population base; general lack of "upscale" residential neighborhoods to attract business management and other professionals; high rates of crime in some areas of the City; reduced cultural opportunities and minimal public involvement; highly degraded air quality; fear of the effects of major earthquakes on the San Andreas and San Jacinto faults; temperature extremes in the winter and summer; and damaging winds and foothill fires.

On the other hand, the City contains many elements which do or can contribute to a high quality of life. These include its residents; enthusiasm of many to maintain existing assets and improve upon the problems; numerous stable and well designed and maintained single-family residential neighborhoods; a well used park system; two regional shopping centers; the principal center of governmental services, including County, state, and federal, as well as local uses; major higher educational opportunities at California State University San Bernardino and San Bernardino Valley College; major region-serving health facilities; expanding office and business market along the Interstate 10 corridor; significant opportunities for attracting new development and employment, major automotive, trucking, and railway routes as a "hub" and "entry" to the Los Angeles metropolitan basin; its location as the site of the national Orange Show; comparatively inexpensive property; and, not least, the strong visual and physical amenity of its location at the base of the San Bernardino Mountains and easy access to the latter's recreational areas.

While the assets are significant, the San Bernardino community has recognized that the problems adversely impact the ability to achieve the quality of life which they desire. As a consequence, fundamental to the policies and programs contained throughout this Plan has been the issue of how they can effectuate positive change for existing and future residents.

The following presents an overview of the fundamental components of each element directed at improving the City's quality of life.

1. Land Use

- Accommodation of a full diversity of land uses which provide for the needs and physical and social well-being of existing and future residents (housing, employment, recreation, education, cultural, services, etc.).
- Expansion of lands to induce development of new employee-generating industries and businesses.
- Establishment of a number of centers and corridors as distinct high activity areas of the City, including downtown, Tri-City-Commercenter, Mount Vernon Community Center, Santa Fe Railroad Depot Specialty Center, Highland Avenue "Core", and other locations.
- Maintenance of stable residential neighborhoods and commercial districts.
- Enhanced development of "pedestrian-oriented" activity areas and spaces.
- Improved integration of development with the natural setting in hillside areas.
- Controls on development to protect significant environmental resources and minimize hazards.
- Improved compatibility among differing land uses.
- Improved quality of site development and construction.

2. Housing

- Provision of a diversity of housing for all income levels, including low and moderate income and "upscale"-executive households.
- Improved quality of design and construction of multi-family units.
- Incentives for the development of senior citizen and congregate care housing.

- Integration of new housing to preserve the character of older residential neighborhoods.

3. Historical and Archaeological Resources

- Protection of historic, cultural, and archaeological resources for the education and enjoyment of the public.

4. Economic Development

- Establishment of strategies to attract new employee-generating jobs to the City.
- Establishment of strategies to sustain the economic health of the City's businesses and revenue to the community.
- Stimulation of the physical and economic redevelopment of deteriorated and blighted areas.
- Provision for long term fiscal stability to maintain and improve community services.

5. Urban Design of Public Open Spaces

- Improved visual image and identity of the overall City and individual neighborhoods and districts.
- Establishment of a number of distinct districts and corridors that are unified through their streetscape and landscape character.
- Establishment of a unique "sense of place" within key activity areas and districts.
- Establishment of clearly defined entries into the City and individual districts.

6. Circulation and Traffic

- Provision for the mobility of residents from home to business, services, recreation, school, and other destinations within the City.
- Enhancement of vehicular access to the City from freeways and through the City.
- Provision of measures to reduce vehicular travel through transportation demand management.
- Enhancement of the opportunities for alternative modes of transportation; public transit, bicycle, regional rail, and so on.

- Improved hiking and equestrian trails and linkages to peripheral recreational resources.

7. Infrastructure/Utilities

- Provision of adequate infrastructure and utilities (sewer, water, storm drainage, solid waste, electricity, natural gas, and telecommunications) to support new development and assumption of its costs by the beneficiaries.

8. Police and Fire

- Continuation of police and fire services to support the needs of existing and future residents.
- Continuation and improvement of programs to reduce rates of crime.
- Control of development to reduce fire hazards.

9. Education

- Continuation and expansion of educational programs for all residents.
- Expansion of facilities to commensurate with population growth.

10. Cultural Facilities

- Continuation and expansion of facilities and programs to afford cultural opportunities for the City's residents.
- Development of new facilities documenting the City's cultural and ethnic heritage.

11. Parks and Recreation

- Maintenance of existing and expansion of park facilities and programs as population growth occurs.
- Development of recreational programs to meet the specific needs of the residents.
- Enhanced opportunities for recreational experiences through the establishment of linkages to the foothills and along the river and creek corridors.

12. Biological Resources

- Management of development to protect significant environmental habitats; particularly those in the foothills, riparian corridors, and along river and creek channels.
- Development of resource education and observation programs.

13. Mineral Resources

- Management of mineral resource areas to ensure their productivity.

14. Climate and Air Quality

- Preclusion of uses that significantly degrade the air quality.
- Location of commercial services and employment in proximity to residential areas to minimize travel distances and, consequently, reduce emissions.
- Improved balance of housing and jobs in the City to reduce vehicular travel and emissions.
- Implementation of traffic demand management programs to reduce automobile use and associated emissions.

15. Energy and Water Conservation

- Implementation of measures to reduce the use of water and energy, minimizing the depletion of scarce and non-renewable resources.
- Establishment of community recycling programs to minimize the depletion of scarce resources.

16. Geologic and Seismic

- Controls on land use and construction to minimize the impacts of major earthquakes.
- Rehabilitation and upgrading of existing hazardous buildings.
- Maintenance of adequate programs to provide emergency assistance after an earthquake.

17. Hazardous Materials and Uses

- Controls on the development of hazardous uses and storage, transports, and disposal of hazardous materials to prevent impacts on existing and future residents.

18. Noise

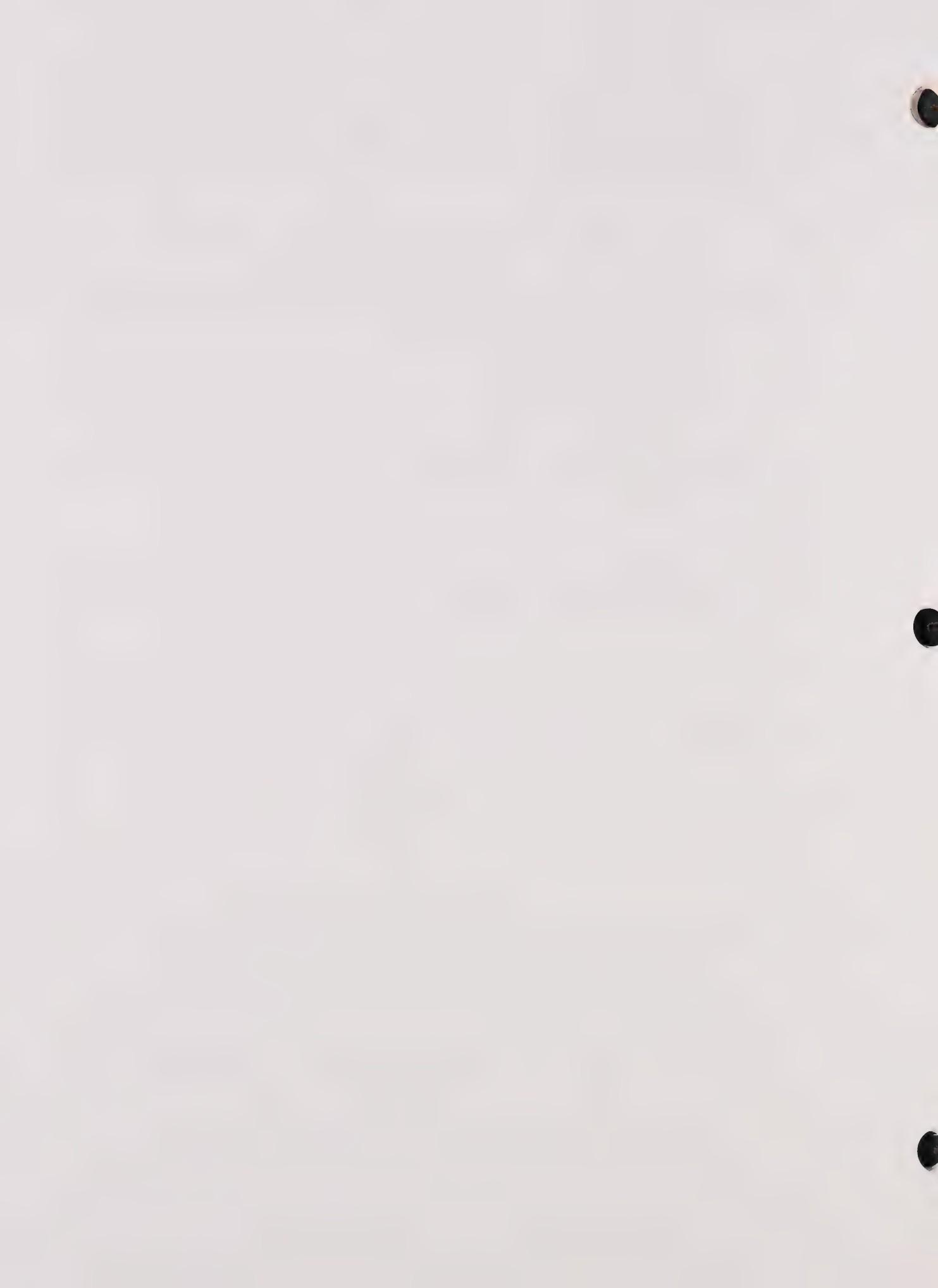
- Control of the location of development and implementation of construction standards to mitigate the adverse impacts of highway, airport, and railroad noise.
- Implementation of noise attenuation elements in existing developed areas exposed to adverse noise levels.
- Limitation of the noise levels which may be generated by uses in the City to protect adjacent residences and other noise-sensitive uses.

19. Wind and Fire

- Standards for the location of development and construction of buildings to protect the health and safety of residents and prevent property damage due to extreme wind and brushfire conditions along the City's foothills.

20. Flooding

- Limitations on development in high flood hazard areas to protect life and property.



C H A P T E R O N E

COMMUNITY DEVELOPMENT



1.0 LAND USE AND URBAN DESIGN

STATUTORY REQUIREMENTS

State of California law requires that a land use element be prepared as a part of a city's General Plan, as follows:

Government Code Section 65302(a): A land use element which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to those areas.

Effectively, the Land Use and Urban Design Element has the broadest scope of the elements required by the State. Since it regulates how land is to be utilized, most of the issues and policies contained in all other plan elements are integrated into and synthesized by this element.

OVERVIEW OF EXISTING CONDITIONS AND ISSUES

A. INTRODUCTION

1. Historic Growth Patterns

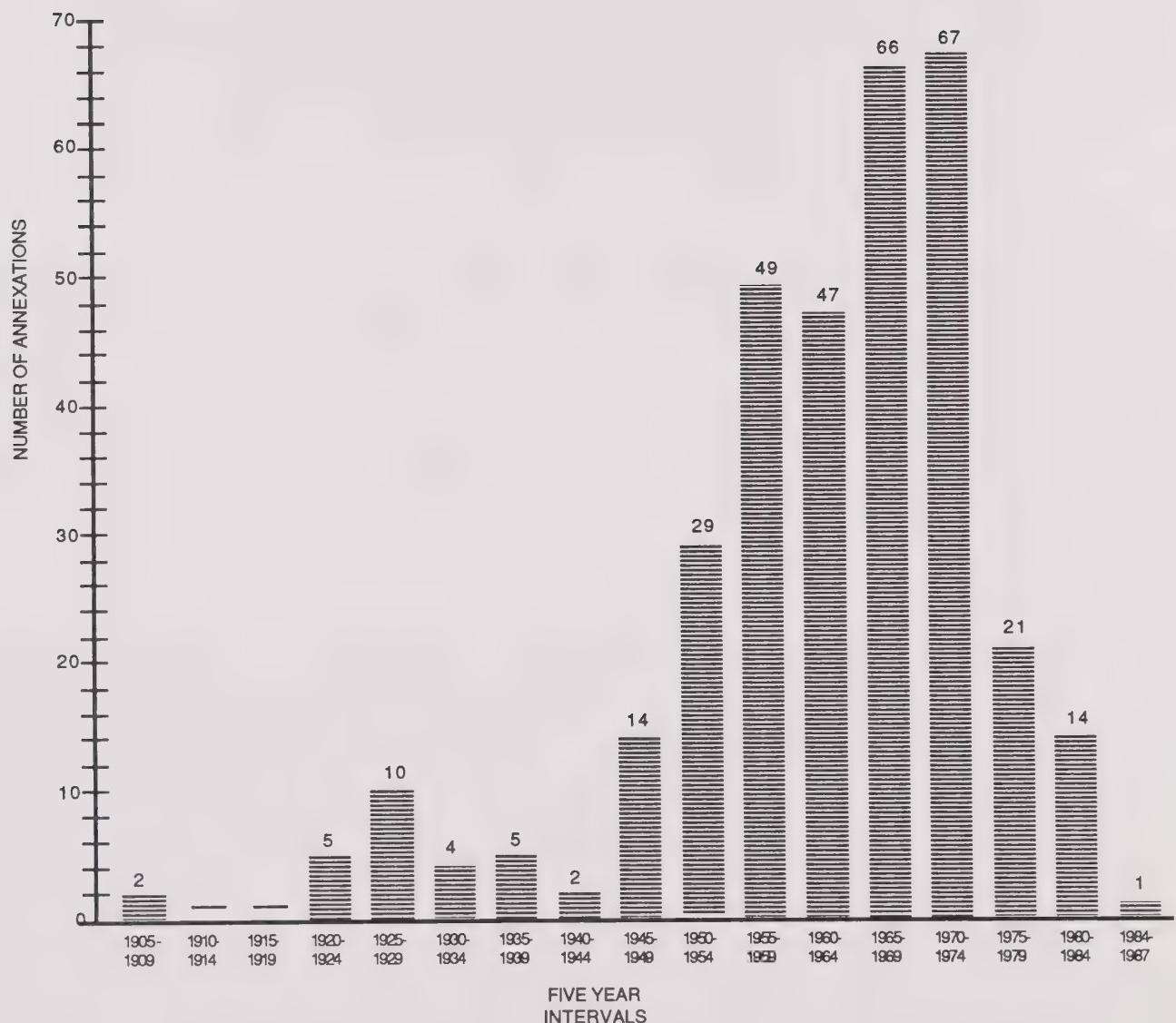
The City of San Bernardino was incorporated in 1866, about 15 years after it was founded by the Mormons. The original City included about one square mile of what is now the Central Business District. In 1905, the year the city charter was adopted, a single annexation more than quadrupled the City's area by expanding on all sides. In the 35 years between 1905 and 1940, 25 more annexations added just under 12 square miles to the City. In the 1950s, the number of annexations increased sharply as shown on Figure 3. By the end of 1987, a total of 356 annexations had increased the size of the City to 55 square miles.

2. Overview of the City

The City of San Bernardino is generally bounded by the foothills of the San Bernardino Mountains on the north, Lytle Creek on the west, and the Santa Ana River on the south. The eastern boundary follows irregular city limits shared with San Bernardino County and the adjacent cities of Highland, Redlands, and Loma Linda. The downtown area, located between 9th Street, Sierra Way, Rialto Avenue and the I-215 Freeway generally follows the boundaries of the original Mormon town site. South of the downtown area,

FIGURE 3

HISTORIC GROWTH PATTERNS:
NUMBER OF ANEXATIONS



the City is developed with commercial and industrial uses. Tri-City and the Commercenter form a major commercial-office node located at the intersection of the I-215 and I-10 Freeways. Inland Center, located adjacent to the I-215 Freeway is also a key commercial area. Although the freeways divide the City into north/south and east/west sections, the major development patterns were established prior to their construction.

Residential uses have generally developed outward from the downtown area with densities decreasing toward the foothills. Overall, the highest residential densities are found adjacent to the downtown area. Residential growth patterns were fairly well established before the freeways were built.

California State University is a major identifiable land use in the northern section of the City. In the southeast section, Norton Air Force Base is a significant land use that plays a key economic role in the City. The Santa Fe rail yards, also a major land use, are located on the City's west side.

Environmental constraints did not hinder the early growth and development of the City because the extent of the potential hazards was not fully known. As a result, many habitable structures straddle earthquake faults while much of the southern part of the City was built on land which contains high groundwater levels.

B. EXISTING LAND USE

The City and its sphere of influence (i.e., "planning area") contain 64 square miles, or 40,960 acres. Approximately 86 percent (35,200 acres) are located in the City while 14 percent (5,760 acres) are in the County. Table 2 indicates the existing land uses in the planning area (as generally depicted in Figure 4) and Table 3 indicates the numbers of residential units and commercial and industrial building area therein.

For the purposes of this discussion, the City planning area is divided into quadrants divided north-south by Highland Avenue and east-west by "E" Street.

1. Residential Uses

a. Single-Family

Single-family uses encompass those areas which provide residential quarters for families living as a single unit in one building. These are located on a wide range of lot sizes, with the smallest having less than 5,000 square feet. A "standard" subdivision contains lots with a minimum size of 7,200 square feet. Existing single-family densities range from less than one to seven dwelling units per acre of land. Areas containing mobile home parks and two dwelling units on a lot are also classified in this category because their character and density is consistent with what is typically thought of as single-family residential.

TABLE 2

**Existing Land Use
Planning Area (City and Sphere of Influence)
(1987)**

<u>Land Use Category</u>	<u>Area (Acres)</u>	<u>Percentage Developed/ Undeveloped Land</u>	<u>Total Land</u>
Developed Land			
Residential			
• Single-Family	19,466	43.0	25.5
• Multiple-Family	1,181	4.9	3.0
Commercial	1,848	7.6	4.5
Industrial			
• Light	674	2.8	1.5
• Heavy	306	1.3	1.0
Public/Quasi-Public	3,627	14.9	9.0
Parks	518	2.1	1.0
Streets/Rights-of-Way	5,694	23.4	14.0
Subtotal	24,314	100	59.5
Undeveloped Land			
Vacant	12,146	73	29.5
Flood Control/Open Space	4,500	27	11.0
Subtotal	16,646	100	40.5
TOTAL	40,960 (64 square miles)		100

Source: City of San Bernardino Planning Department.

FIGURE 4
GENERALIZED EXISTING LAND USE

-  Low Density Residential (1 - 7 d.u. / ac.)
-  Medium / High Density Residential (8+ d.u. / ac.)
-  Commercial (General and Office)
-  Industrial (Light and Heavy)
-  Public
-  Flood Control/Open Space
-  Vacant

(Source: City of San Bernardino Planning Department)

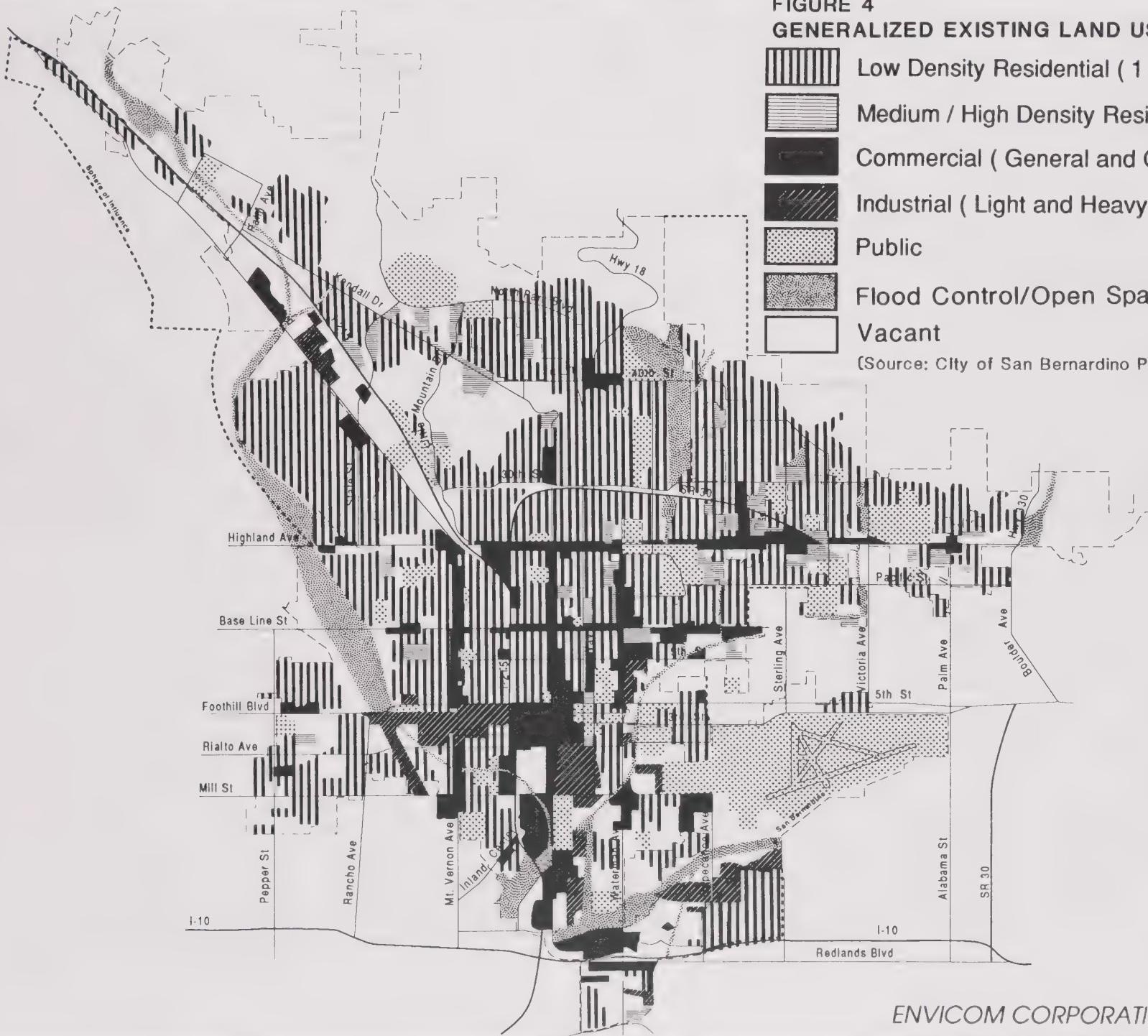


TABLE 3

Existing Residential Units and
Commercial and Industrial Building Area
Planning Area (City and Sphere of Influence)

	<u>Units</u>	<u>Square Feet</u>
Residential	Single-family	56,322
	Multi-Family	20,167
	Total	76,489
Commercial	Retail	6,459,000
	Office ¹	4,749,000
	Total	11,208,000
Industrial		5,658,000

Source: City of San Bernardino Planning Department, May and September, 1987.

1. Includes government.

Single-family residential uses account for 25.5 percent of the planning area. Though these uses are dispersed throughout the City, the majority are located in the northern two-thirds of the planning area.

The northwest quadrant contains single-family units on a variety of lot sizes. The Muscoy area, located west of Cajon Boulevard and north of Highland Avenue, is an older section that historically included small agricultural uses on larger lots. The Verdemont (the extreme northwest end of the City) and University areas are primarily standard-size subdivisions. Verdemont, north of Palm Avenue, contains one large-lot subdivision, while the remainder contains scattered large-lot residences. The foothills in Verdemont also contain large-lot single-family development. Arrowhead Suburban Farms is a collection of older, large-lot subdivisions in an unincorporated island north of 40th Street in the University Area. North of Kendall Drive on either side of Little Mountain Drive are a few small lot and patio home subdivisions.

The single-family areas in the northeast quadrant consist primarily of standard-size subdivisions with larger lots along the foothills. Generally, these have been developed since the 1950s. The eastern end of the northeast portion of the City, north of Highland Boulevard, is one of two portions of the planning area which contain a large number of mobile homes. These include Mountain Shadows Mobile Home Park, located in the foothills, one north of Highland at Rockford Avenue, and the other at Mountain and Lynwood Avenues.

Fewer single-family residential developments exist in the southeast quadrant than in any of the other quadrants. It consists of older housing on a variety of lot sizes typical for the subdivisions of their time periods. The area around San Gorgonio High School was built in the 1960s, while the area west of Del Rosa Avenue between Highland Avenue and Base Line Street was developed in the 1950s. West of Norton Air Force Base (AFB) and north to Base Line Street is the eastern downtown area which dates from the 1920s and 1930s. The homes south of Mill Street and Norton AFB to the San Bernardino Freeway were built in the 1940s and 1950s. The area south of Interstate 10 contains the South Pointe development begun in the early 1980s, as well as remnants of development from the 1950s located east of Waterman Avenue. South Pointe contains a variety of density types including small lot subdivisions and patio homes. A concentration of mobile homes is found along 9th Street east of Waterman Avenue. A single, large mobile home development is located north of Atlantic Avenue and east of Palm Avenue.

The southwest quadrant contains primarily standard-size subdivision lots. It consists of an older core area which developed in the 1920s and earlier around the railroad yards at Foothill Boulevard and Mt. Vernon Avenue. The areas north and south of the railroad yard east of Mt. Vernon Avenue developed in the 1930s and 1940s, including the area around San Bernardino Valley College. The area west of Mt. Vernon Avenue, including the bench area north of Foothill Boulevard at Lytle Creek Wash dates from the 1950s and 1960s. The extreme southwest corner of this quadrant contains the planning area's second concentration of mobile homes, built primarily in the 1970s. This corner also has

been the site of new single-family subdivision development in the 1970s and 1980s. One small-lot subdivision has been built here as well.

b. Multiple-Family

Multiple-family residential uses encompass those areas that contain three or more dwelling units per lot. This land use accounts for three percent of the land uses in the planning area.

The northwest quadrant contains a concentration of multiple-family units south of the California State University campus. These are located primarily along Kendall Drive, North Park Boulevard, Little Mountain Drive, and University Parkway. The Little Mountain Area when fully developed will contain over 1,500 multiple-family units. An additional small concentration of multiple-family units is located in this quadrant along Little Mountain Drive near the Shandin Hills Golf Course.

A substantial concentration of apartment units exist in the northeast quadrant along Del Rosa Avenue between Lynwood Drive and Highland Avenue. Condominium developments are located on Mountain Avenue north of 35th Street and Lynwood and Sterling Avenues. In addition, there is a small development of condominiums at the extreme east end of the quadrant.

The multiple-family units within the southeast quadrant are scattered throughout the area. The extreme east end contains a condominium cluster just south of Highland Avenue. Several blocks to the west, between Arden and Sterling Avenues, is a medium-sized concentration of apartments. A small cluster of apartments also exists south of I-10 Freeway at the southern edge of the planning area. The uptown area, bounded approximately by 9th Street, "E" Street, 15th Street and Waterman Avenue, contains a mixture of multiple-family and single-family uses at a higher overall density than most multiple-family areas in the City. The area south of 9th Street also contains a mix of multiple-family and single-family uses.

The southwest quadrant does not consist of any substantial multiple-family residential areas. The few which exist are scattered throughout the quadrant. The only exceptions are the two multiple-family projects located opposite from each other at California Street and 19th Street.

2. Commercial Uses

Commercial uses encompass neighborhood, community, or regional retail and wholesale establishments, as well as administrative and professional offices. Commercial use accounts for approximately 4.5 percent of the acreage in the planning area.

Commercial development in the northwest quadrant is sparse. Newly developed neighborhood retail services are found scattered along Kendall Drive. Along Highland Avenue, commercial use is extremely scattered.

The majority of commercial development in the northeast quadrant is located along the north side of Highland Avenue. A high volume of traffic along this east-west arterial supports a wide variety of both neighborhood and community centers arranged in strip fashion along both sides of the street. In addition, some neighborhood and community services are located along 40th Street between "E" Street and Waterman Avenue, and a few scattered small strip developments are located on Del Rosa Avenue.

The southeast quadrant contains several different commercial areas. The south side of Highland Avenue contains strip commercial uses with developments similar to those located on the north side. There is a neighborhood retail center located near the eastern end of the quadrant at Highland and Palm Avenues. An area of strip commercial, which is underdeveloped and not developed to current standards, exists along Base Line Street between Waterman and Del Rosa Avenues. Medical and dental offices and related uses are located on Waterman Avenue between Highland Avenue and Base Line Street, in proximity to the two hospitals. Located along Waterman Avenue, south from Base Line Street to 3rd Street, are some general commercial uses with a concentration of automobile-related uses. In addition, a concentration of used car lots exists in this quadrant along "E" Street between 8th and Base Line Streets. The downtown portion of the southeast quadrant contains the Civic Center, County Government Center, County Courthouse, and other related offices and services. On "E" Street south of the National Orange Show Grounds is a cluster of retail service centers. Two recently developed and highly viable commercial concentrations are located in the southern area of this quadrant. One is the Tri-City/Commercenter area located just north of Interstate 10. This area, which is currently under development, consists of multi-story office buildings and support services, including restaurants and hotels. South of Interstate 10 is located in a newly developed retail center supporting numerous "membership club-type" outlets.

In the southwest quadrant are the City's two regional malls. The Central City Mall is located in the downtown area at 2nd and "E" Street and the Inland Center Mall is located at Inland Center Drive and "E" Street. The areas surrounding both malls support a number of smaller commercial centers. The new San Bernardino Auto Center is located at the southern end of the quadrant, west of Interstate 215. In addition to these, several other commercial concentrations exist. A cluster of retail uses is located in the area surrounded by Highland Avenue and the junctions of Interstate 215 and the Crosstown Freeway. The strip of used car lots along "E" Street are on the west side of the street. Scattered strip development occurs along Highland Avenue west of the freeway and along Mt. Vernon Avenue south of Highland Avenue to Mill Street. The extreme southwest portion of this quadrant lacks local commercial services; however, they are available to the west in the neighboring City of Rialto.

3. Industrial Uses

a. Light Industrial

Light industrial uses include warehousing and storage, transportation and distribution of goods, light manufacturing, research and development, and other similar activities. This land use accounts for approximately 1.5 of the acreage in the planning area.

In the northwest quadrant, industrial uses exist west of Interstate 215, scattered along Cajon Boulevard north of Palm Avenue, and in the State College Industrial Park located at University Parkway between Interstate 215 and Cajon Boulevard.

The northeast quadrant does not contain any industrial uses.

The southeast quadrant has several pockets of light industrial uses. The primary area is an industrial park complex in the southern part of the quadrant, north of the Tri-City area, east and west of Tippecanoe Avenue. Other concentrations of light industrial use are located around 9th Street and Waterman Avenue, and in the section bounded approximately by Arrowhead Avenue and Sierra Way, and Rialto Avenue and Orange Show Road.

Light industry in the southwest quadrant is concentrated in the vicinity of the railroad yards west of Interstate 215 between 5th Street and Rialto Avenue. There is also some light industrial activity around Base Line Street and the railroad track west of Lytle Creek Wash.

b. Heavy Industrial

Heavy industrial uses, such as steel fabrication, railroad uses and concrete manufacturing, account for approximately one percent of the total land acreage in the planning area. There are only two concentrations of heavy industrial activity in the planning area. One is located in the northwest quadrant between Cajon Boulevard and Interstate 215 along Industrial Parkway. The other concentration of heavy industrial use is located in the southwest quadrant. These are centered on the railroad yards and the immediate vicinity.

4. Open Space/Flood Control

Open space as described here is predominantly used for, or in conjunction with, flood control uses. This land use type accounts for approximately 11 percent of the acreage in the planning area.

Flood control use includes a large variety of facilities, such as wash areas, creeks and drainage channels, and detention and percolation basins. Flood control areas are concentrated in and around the Lytle Creek Wash and the Santa Ana River as they pass through the City and its planning area. Four other major flood control areas are found

along the foothills and include (a) the Cable Creek area, (b) Devil Canyon, (c) east Twin Creek, and (d) City Creek. The first two drain into Lytle Creek, while the other two empty into the Santa Ana River. A number of other minor flood control areas contribute flood waters to these four major drainages.

Other open space areas include the City's three golf courses, one of which is privately owned. Shandin Hills Golf Course is located on both sides of Interstate 215 about one mile north of Highland Avenue. The City Municipal Golf Course lies immediately north of the Santa Ana River on Waterman Avenue. Although Arrowhead Country Club and Golf Course is a private facility, its location affords public view of private open space.

5. Public/Quasi-Public

Public and quasi-public uses include such facilities as schools, hospitals, government buildings, utilities, and other public buildings. With the exception of two private hospitals, all are publicly owned. They are all widely scattered throughout the City and its planning area. These uses occupy 3,627 acres, nine percent of the total acreage.

The northwest quadrant contains the Western States Little League facility, located on Little League Drive in the Verdemont area. Cajon High School, as well as two intermediate schools and eight elementary schools are also located in this quadrant. The California Aqueduct traverses the area as it transports water from Lake Silverwood through Devil Canyon to the Lytle Creek area.

The northeast quadrant contains public and quasi-public uses including the Mountain View Cemetery and Patton State Hospital, as well as two intermediate schools and nine elementary schools. The U.S. Forest Service maintains a large facility in the foothills for vehicle and equipment storage.

The southeast quadrant contains two major hospitals, St. Bernardine Medical Center and the County Medical Complex. The Center for Individuals with Disabilities, a joint City-County facility, is located at Palm Lane and 4th Street. Other county-owned facilities include the County Jail and the Sheriff's Headquarters on Rialto Avenue, County Government Complex and City Hall in the downtown, as well as an assortment of miscellaneous buildings, storage yards, and other facilities related to these uses. The State and Federal Governments also own several buildings and parcels. The City wastewater treatment plant is located near the Santa Ana River between "E" Street and Waterman Avenue. The City-owned Pioneer cemetery is located north of Seccombe Lake State Urban Recreation Area on 7th Street. The Inland Blood Bank is located east of the regional post office facility on South "E" Street. The main City Post Office is located downtown. San Gorgonio High School and the Pacific High School site, one intermediate, and 12 elementary schools are also in the quadrant.

The southwest quadrant contains the San Bernardino Valley College campus on South Mt. Vernon Avenue and Community Hospital on Medical Center Drive. The California

Aqueduct continues its southward journey as it passes along the Lytle Creek Wash through this quadrant. San Bernardino High School, as well as one intermediate and nine elementary schools are located here.

Throughout the City are several public or quasi-public uses which are singularly important or unique. They include Norton Air Force Base, National Orange Show Grounds, California State University, San Bernardino campus, and Santa Fe Railway yards. Norton Air Force Base is the 1,751 acre site of the 193rd Airlift Command. The National Orange Show Grounds contain 136 acres located between "E" Street and Arrowhead Avenue, south of Mill Street. It is a privately owned state-chartered facility, founded at the beginning of this century to stage the state Citrus Fruit Fair. The 160 acre California State University Campus is located in the northwest quadrant of the City, at the corner of University Parkway and North Park Boulevard. The Santa Fe Railway yards are the major west coast switching facilities for the Atcheson-Topeka and Santa Fe Railroad.

6. Parks

City park lands account for approximately 518 acres or one percent of the total planning area acreage.

The northwest quadrant of the planning area has one community park located off Little Mountain Drive, east of the Shandin Hills Golf Course. Two neighborhood park sites exist in the Verdemont area; one of which is partially developed and the other is being planned. There is also a neighborhood park in the State College area, south of Kendall Drive, and one in Delmann Heights, west of Cajon Boulevard and north of Highland Avenue. In addition, there is a mini-park/tot lot in the southwest portion and an open space/scenic area in the northeast portion of the quadrant.

One community park is located in the northeast quadrant near the foothills at 40th Street and Waterman Avenue. There are three neighborhood parks, all in the western end of the quadrant. In addition, the quadrant has a ball field, two mini-park/tot lots, and three areas classified as open space/scenic areas, all in the western end of the quadrant.

Three regional parks are located in the southeast quadrant of the planning area. Perris Hill Park is a fully developed park located on Highland Avenue between Waterman and Golden Avenues. Another, Patton Park, is a partially developed site located at Pacific Street and Arden Avenue. The third, Seccombe Lake State Urban Recreation Area is a joint venture with the State in the downtown area at 5th Street and Sierra Way. One community park is located in the southeast portion of this quadrant and two neighborhood parks are located in proximity in the downtown area. In addition, there are two ball fields (one south of Interstate 10) and two special facilities located in this quadrant.

The southwest quadrant contains a much higher concentration of land in park uses than the other quadrants of the planning area. There are two community parks located south

of 5th Street and six neighborhood parks distributed throughout the quadrant. In addition, there are two ball fields and three special facilities.

7. Vacant Land

Vacant lands include those which are undeveloped. Easements, rights-of-way for highways, roads, other infrastructure facilities, and under-utilized lands are excluded. Vacant land accounts for approximately 29.5 percent of the planning area.

The majority of the vacant land in the planning area is located in the northwest quadrant. It contains large expanses of land in the foothills north and east of the State University and in Shandin Hills surrounding Little Mountain. There are large areas located between Interstate 215 and the Lytle Creek Wash, north of the Flood Control Channel, and a concentration of large lots between Interstate 215 and Cajon Boulevard surrounding University Parkway. The Verdemont area is primarily vacant with scattered development.

Vacant land in the northeast quadrant is spread along the foothills of the San Bernardino Mountains with a few small infill lots scattered throughout.

The southeast quadrant contains several concentrations of large vacant areas. They include portions of the Tri-City Area (north of Interstate 10 and east of Waterman Avenue), an area south of Norton Air Force Base extending to the south side of the Santa Ana River between Tippecanoe and Mountain View Avenues, and the area of the City north of Norton AFB centering on Sterling Avenue. There is scattered large-lot infill throughout the rest of the quadrant, except the downtown area.

The southwest quadrant contains a scattering of both large and small vacant areas, the majority located along or west of the Lytle Creek Wash. There is a notable concentration of vacant lots in the Warm Creek area, west of Interstate 215 and south of Inland Center Drive.

C. STRUCTURAL CONDITIONS

A survey of structural conditions was completed for the City of San Bernardino and its sphere-of-influence during May through September, 1987. Structural conditions were classified as follows:

- Standard: No major deficiencies, although structure may require minor maintenance, painting, and general clean-up.
- Deteriorated: Structure contains several deficiencies such as patched, loose, or missing roofing material; missing or broken windows; wood trim or siding worn, weathered or broken; paint cracking or peeling; loose or worn wiring, etc.

- Dilapidated: Structure contains one or more major structural deficiencies such as loose protective surface (brick, plaster, wood, siding, etc.); settled porch or roof; weakened structure or inadequate foundation; obvious deviation from plumbing; extensive damage due to fire, etc.

Older structures that did not meet current requirements for setbacks and landscaping were considered to be in standard condition if there were, otherwise, no major deficiencies.

In the northwest quadrant of the planning area, the area northwest of University Parkway and Cajon Boulevard contains very few deteriorated structures. Substandard units which exist are single-family residences.

Around the California State University campus are newer single- and multiple-family developments in standard condition. Between North Park Boulevard and the foothills, the structures are primarily single-family residential, also in standard condition.

Arrowhead Suburban farms is an older area located north of 40th Street and south of North Park Boulevard. This area contains a larger percentage of deteriorated and dilapidated single-family structures in comparison with the surrounding areas.

The neighborhoods located around the intersection of the Crosstown and I-215 Freeways contain older single-family structures. North of the Crosstown Freeway are fewer than five deteriorated structures, whereas south of the freeway this number triples. The deteriorated structures are single-family residences with the exception of two commercial structures on Highland Avenue.

Northwest of Highland Avenue and Cajon Boulevard, including the Muscoy and Delmann Heights are nearly 200 deteriorated and 25 dilapidated structures. The substandard structures are single-family residential and are scattered throughout the area.

The entire northeast quadrant contains fewer than 50 deteriorated and five dilapidated structures. There are some substandard single-family structures around Waterman Avenue and substandard single- and multiple-family structures in proximity to the Crosstown Freeway.

The southernmost portion of the City, located south of the I-10 Freeway, contains only two deteriorated single-family structures. Like the Commercenter and Tri-City areas north of the freeway, development is fairly recent and in standard condition.

Around Waterman Avenue and Central Avenue is a mix of residential, commercial and industrial developments with approximately 100 deteriorated and 15 dilapidated structures. Most of the substandard structures are residential, primarily single-family. A few substandard commercial buildings are found along Waterman Avenue.

The area south of Norton Air Force Base around Tippecanoe Avenue contains single-family and industrial uses. The industrial uses are generally in standard condition and the substandard units are primarily single-family structures.

The area around Central City, generally between "E" Street and Waterman Avenue from Mill Street to 9th Street, contains approximately 150 deteriorated and 20 dilapidated structures. There are some substandard commercial buildings along Waterman Avenue.

Of the single-family structures located west of Waterman Avenue and north of 9th Street, there are approximately 60 which are deteriorated and less than ten which are dilapidated.

There are nearly 60 deteriorated single- and multiple-family structures in the area east of Waterman Avenue, south of Base Line Street. Over half of these substandard structures are located between 3rd and 6th Streets. There are a few substandard commercial buildings along both sides of Base Line Street.

From Base Line Street to Highland Avenue, and east to the City limits, there are fewer than 45 deteriorated structures. With the exception of a few commercial buildings along Base Line Street, the substandard structures are mainly single-family residences. These substandard units are dispersed throughout neighborhoods of standard single-family structures. An exception, however, is a small area at Highland and Arden Avenues where there is a considerably higher number of substandard multiple-family units.

Between Mt. Vernon Avenue and the I-215 Freeway in the southwest quadrant lies an older area containing single-family residences with some multiple-family residences distributed throughout. This corridor, extending from Highland Avenue to 5th Street contains approximately 150 units in deteriorated condition, but less than ten dilapidated structures. The majority of the substandard structures are single-family residences. While this number seems high, the area is fairly well developed and the substandard structures are dispersed throughout many single-family neighborhoods of standard condition. Along Mt. Vernon Avenue, Highland Avenue and "I" Street are commercial structures in substandard condition.

West of Mt. Vernon Avenue between Highland Avenue and Foothill Boulevard are nearly 100 deteriorated residential structures. The majority of these structures are located south of Base Line Street and are a mix of single- and multiple-family units. There are approximately five deteriorated commercial structures along Base Line Street. Surrounding the Santa Fe rail yards are older residential, commercial, and commercial-industrial areas with deteriorated structures of all uses, although the substandard structures are predominantly residential.

The area surrounding San Bernardino Valley College contains approximately 50 structures in deteriorated condition. These structures are predominantly single-family resi-

dential with some multiple-family units near Rialto Avenue. There are a few deteriorated commercial and commercial-industrial structures along Inland Center Drive and Rialto Avenue.

In the southwest portion of the City that borders on the City of Rialto, there are a large number of mobile home parks in standard condition. The few substandard units that exist are single-family residences in older neighborhoods.

D. SUMMARY OF LAND USE ISSUES

The following indicates the significant land use issues impacting the City of San Bernardino and its sphere of influence. These have been identified by consultant and City analyses and public input.

1. In recent years, the City has experienced a relatively rapid rate of residential and commercial development. To a large extent, this has occurred in the absence of an effective "blueprint," or comprehensive community policy, for the "vision" for the intended role and character of the City, or the means which development and resources should be managed to achieve this "vision." As a consequence, there have been significant changes in the character of development, increased traffic and noise, loss of open space, impacts in the extent and integrity of environmental resources, loss of historic resources, and impacts on schools and other public services. Many of these have resulted in substantial costs to the community and adversely impacted the City's image and quality of life.
2. While the City is extensively developed, there are considerable vacant and underutilized lands on which new development can be accommodated. Many of these, however, are impacted by environmental constraints and sensitivities, lack of economic activity, character of existing uses, and/or operations of adjacent uses.

The most attractive location and greatest economic demand for new residential development is along the City's northern periphery extending into the foothills and hillsides. These areas contain many significant environmental habitats and hazards for development (brush fire, landslide, flooding, etc.). Historically, development has varied in the degree and sensitivity to which it has accounted for these constraints. Some have extended typical flatland subdivisions into the hillsides, utilizing massive grading, destroying natural resources and incurring slope stability and erosion problems. Others have sited their units to maintain the hillsides' unique character and resources. As development demands continue, of concern will be the extent to which development will be permitted in the City's hillsides and manner in which it will be integrated with resource sensitivities and hazards.

Additionally, there are numerous flatland areas of the City in which new development can occur. Many areas along the I-215 corridor between downtown and the Tri City-Commercenter area contain large undeveloped parcels. Largely, there has been insufficient economic demands or marketing efforts to result in the infill of these

areas for commercial or industrial uses. Extensive lands east of this corridor extending to Norton Air Force Base are, also, vacant or sparsely developed. The existing character of uses (marginal commercial/industrial and deteriorated residential) and the noise impacts of the Base, in concert with the absence of a strong market, have inhibited development of these lands. In both locations, there appears to be little attraction for the development of residential uses.

In the northwest portions of the planning area, in Muscoy and Verdemont, there are large vacant and sparsely developed lands. While there have been some market "pressures" to extend typical suburban residential development and some higher densities to the Verdemont area, these have been constrained by the lack of supporting infrastructure, and public concerns regarding the appropriateness of an evolution from a rural to a suburban/urban environment and impacts of development on local environmental resources. Muscoy, similarly, is a rural environment for which there has been little demand and lack of community desire to intensify residential densities. Intermediate vacant lands between Cajon Boulevard and I-215, while physically suitable for industrial or other uses, have not experienced economic demands for development.

3. New development which occurs as infill or recycling of existing uses could significantly impact the role and character of existing residential neighborhoods, commercial districts, and other activity areas of the City. The tendency is to replace older uses and buildings with more intensive development, regardless of the value or significance of the area. The extensive demolition of buildings in the downtown is indicative of the potential results. Of concern is the need to preserve residential neighborhoods, commercial districts, and individual buildings and sites which are of historic significance and valued by the community.
4. San Bernardino's pattern of land uses is characterized by the presence of several major centers (downtown, Tri-City/Commercenter, Inland Center and Central City Malls, California State University, and Norton Air Force Base), "strip" commercial corridors, a mix of well- and ill-defined residential neighborhoods, and clusters of high density housing. Many of these are self-contained fragments, with few linkages integrating the City into an organized and cohesive pattern of uses. Some districts, such as Tri-City/Commercenter, are internally well-organized and planned. Others, such as Highland Avenue, are long-corridors of disparate fragments.
5. Currently, the City contains insufficient employment opportunities for its residents. As a consequence there is a need to provide for the development of use which will provide additional employment for residents of the City and adjacent areas.

6. A number of the City's commercial districts are characterized by patterns of use and intensities of development which are inconsistent with the intended function and/or do not adequately serve adjacent residential communities. These problems are particularly evident in the downtown area and along Mount Vernon Avenue and Base Line Street.

Historically, San Bernardino's downtown was the most intensively developed area of the City and surrounding region. Wholesale demolition and clearance of buildings was intended to precipitate the area's revitalization as peripheral developments resulted in its declining activity and blighted conditions. New City and County governmental buildings, a "regional" mall, more typical of suburban areas and unrelated to an urban center, and a hotel/convention facility have been the dominant uses to develop in the downtown. Other than these, the area is characterized by low intensity, low-activity uses which physically and functionally fail to convey the "sense" of a primary regional downtown.

Mount Vernon Avenue and portions of Base Line Street were developed as "strip", highway-oriented commercial corridors. Subsequent development of commercial centers, with convenient parking, extensive landscape, and attractive buildings, in other locations and shifting patterns of travel, resulted in declining customer activity and relocation or closure of many of the businesses. Today, the corridors contain a fragmented pattern of local-serving businesses, closed and boarded buildings, and vacant parcels.

Throughout the City, there are other corridors and clusters of similarly under-utilized commercial properties.

7. Generally, the City's commercial areas, other than the downtown, regional malls, and Tri-City/Commercenter, are developed as continuous "strip" corridors along major arterials. Most of the older "strip" corridors are located on shallow parcel depths along the street frontages; typically, ranging from 120 to 180 feet in depth (e.g., Highland Avenue between "E" Street and Waterman Avenue and the Mount Vernon corridor). In such areas, there is insufficient space to provide on-site parking in conformance with contemporary code requirements. Customers park on the street or in adjacent residential neighborhoods. Some areas are avoided with customers traveling to more convenience centers, and, as a consequence, economic activity has declined.
8. The City's two regional malls, Central City and Inland Center, are developed as self-contained centers and have considerable area to accommodate additional development. Both contain anchor department stores, one and two levels of supporting retail shops, and are surrounded by extensive parking. The latter can be used for commercial expansion in concert with the development of parking structures.

9. The "E" Street corridor between 8th Street and Base Line Street contains numerous used car dealerships and automobile related uses which have been located in the area for many years and are, largely, visually unattractive. Many of their operations result in traffic and noise which impact adjacent residential neighborhoods.
10. The Tri-City/Commercenter area has been developed as an integrated office and research and development park containing supporting retail uses. It has incorporated buildings of good architectural quality and extensive landscape and open space, resulting in the most distinctive center in the City. There are plans for considerable expansion of similar uses.
11. Most of the City's commercial districts and corridors are automobile related and do not provide for or induce pedestrian activity. The primary exceptions are the Central City and Inland Center Malls, where the retail shops are grouped around a pedestrian "spine". Other than a pedestrian bridge connection from Central City Mall to the City Hall, these pedestrian areas are wholly internalized and do not link to peripheral uses. The absence of pedestrian oriented areas exacerbates traffic problems and resultant air pollution and noise. There are a number of areas of the City in which uses and buildings can be sited and designed to facilitate and enhance pedestrian activity. Among these are the downtown, Tri-City/Commercenter, Highland Avenue between "E" Street and Waterman Avenue, and Mount Vernon Avenue.
12. Norton Air Force Base has been a long-term resident of the City, providing job opportunities and, at the same time, impacting adjacent land uses. Noise attributable to its aircraft operations has adversely affected adjacent residential areas. Generally, housing located to the west and southwest of Norton is marginal and deteriorated. While some industrial and commercial uses have developed, there are vast tracts of undeveloped lands on the periphery. Recent announcement to reduce or terminate operations of the base will necessitate consideration and planning for the reuse of the property.
13. The Santa Fe Railroad Yards and Depot have, also, been a long-term use which has impacted the southwest of the City. Their operations historically stimulated the development of adjacent properties for manufacturing and heavy industrial uses. Over the years, many of the railroad uses and those on adjacent sites have become obsolete and discontinued. Consequently, there are many buildings not being utilized and that are deteriorating. Adjacent residential neighborhoods have also declined with age.
14. The National Orange Show property, physically and functionally, is an isolated "island", unrelated to adjacent properties, and is sporadically used throughout the year. When it is most intensively used, its traffic significantly impacts adjacent streets and commercial districts. Of concern is the potential intensification of use of the site and the means to ensure compatibility with adjacent uses.

15. The California State University San Bernardino campus, physically and functionally, is an independent "island" in the northwest of the City. Its educational activities are heavily used, resulting in high traffic volumes on access streets. It has, further, impacted peripheral areas where apartments and condominiums have been constructed for students and faculty. Of concern are the types of uses which should be developed around the campus (housing, commercial, other) and the means to properly integrate the campus and supporting uses with the surrounding community.
16. San Bernardino was developed early in the history of southern California and, as such, contains many residential neighborhoods of aging housing units. Some are well maintained and others are deteriorating. Certain neighborhoods merit preservation, requiring continuing long-term maintenance and, in some cases, upgrading and rehabilitation. Others, which are so substantially deteriorated that financial reinvestment is unlikely, and have little intrinsic neighborhood or community value, should be replaced over time by other housing or non-residential uses. Of concern are the means to achieve both of these objectives.
17. Recent multi-family development in the City has been characterized by a wide range of quality. Some have been developed as attractive, well-landscaped residential "communities" containing a diversity of amenities to support the residents. Many, on the other hand, have been developed as cheaply constructed stucco-clad "boxes", containing little landscape or amenities. The quality and attendant problems have been so poor that many residents of the City have expressed the desire that no or minimal new multi-family units be allowed. Obviously, this type of housing will continue to be necessary to provide for the diverse needs of the residents. Thus, the concern will be the means by which the development of apartments and condominiums can be improved to mitigate the problems which have characterized these units to date.
18. At the opposite end of the price spectrum, the City contains few residential units which would attract corporate executives and other higher income individuals and families. Those who maintain such jobs in the City tend to reside in adjacent communities. As employment opportunities expand in the City, of concern will be the means to provide housing for the upper end of the income spectrum as well as other groups.
19. The City contains many well-developed and well-used neighborhood and community parks. However, there are few linkages to and recreational use of the natural open space resources which surround and bisect the City. These include the foothills and canyons of the San Bernardino Mountains to the north and the drainages of the Santa Ana River to the southeast and Cajon and Lytle Creeks to the west.
20. Land use development is impacted by the presence of significant environmental resources and hazards. The mountain foothills contain extensive and important

riparian habitats and scrub lands. The Santa Ana River, Cajon Creek, Lytle Creek, and tributary drainages contain significant habitat. The City is crossed by the San Andreas and San Jacinto fault systems and a large area is subject to a high liquefaction potential. The northern portions of the City are impacted by a high wildfire and wind hazards.

OVERVIEW OF LAND USE AND URBAN DESIGN POLICY

The Land Use and Urban Design Element establishes goals, objectives, policies, and programs for the manner in which new development will occur and existing uses and resources will be conserved in the City of San Bernardino. These address each of the following fundamental issues (number in parentheses refers to the issue number listed in the Goals, Objectives, and Policies):

- A. What types and amounts of land use should be accommodated in the City (1)?
- B. How should land uses be distributed throughout the City (2)?
- C. What should be the functional role, uses permitted, and physical form and character of the City's land use districts (3)?
- D. What should be the future role and character of Norton Air Force Base (4)?
- E. What should be the future role and character of the railroad yards (5)?
- F. How should buildings be maintained in the City (6)?
- G. What should be the physical and visual quality of development (7)?
- H. How should development be linked with the provision of supporting infrastructure (8)?
- I. How should development be related to the City's environmental resources and hazards (9)?
- J. What should be the relationship of land use development to public safety (10)?
- K. What lands should be annexed to the City and what should be their priority (11)?
- L. How should the public continue to participate in land use decisions (12)?

The goals, objectives, policies, and programs of the Land Use and Urban Design Element are intended to reinforce the City of San Bernardino as the dominant regional-serving center (or "capital") of the Inland Empire and, at the same time, provide the mix of uses appropriate for the needs of and which establish a high quality of life for the City's residents.

In earlier years, San Bernardino was the principal center of commerce, employment, service, and culture of the southeastern California area. Over time, this role declined as competitive centers developed. The land use policy of this plan is directed at the provision of opportunities to reinforce and "recapture" this role; intensifying and enhancing existing and introducing new uses which attract the patronage and meet the

needs of the greater region. Among these are employee-generating commercial and industrial, corporate and professional office, visitor- and convention-serving, governmental, educational, cultural, and similar uses. Further, the land use policy provides opportunities which capitalize on the City's location at the "entry" to the greater Los Angeles metropolitan area (as a major transportation "hub") and San Bernardino Mountains.

Specific opportunities to continue and strengthen San Bernardino's region-serving role provided by land use policy include:

- A. Intensification of "downtown" San Bernardino with governmental and professional offices, convention facilities, hotels, cultural facilities, supporting retail and restaurants, and high-density residential;
- B. Intensification and upgrading of Central City and Inland Center Malls with new department and ancillary retail stores;
- C. Intensification and introduction of permanent, year-round commercial, and commercial-recreational uses at the National Orange Show site;
- D. Intensification of the Tri-City/Commercenter area with professional and corporate offices, hotels, supporting retail and restaurants, and high-density residential;
- E. Establishment of a "corridor" flanking "E" Street and linking downtown San Bernardino with the Tri-City/Commercenter area in which new major regional-serving uses may be located;
- F. Reuse of the Santa Fe railroad depot and adjacent properties as a high-intensity mixed-use center, incorporating specialty commercial, industrial, transportation, and related uses and establishment of a linkage to the downtown area;
- G. Possible reuse of Norton Air Force Base for aviation-related industrial and commercial uses;
- H. Establishment of a "corridor" containing corporate offices along Waterman Avenue;
- I. Expansion of job-generating industrial uses in the west side, southwest of Norton Air Force Base, and northwest along I-215;
- J. Continued development of the California State University campus; and
- K. Flexibility to accommodate other region-serving uses which are compatible with other uses, environmental constraints, and infrastructure capacities.
- L. Establishment of an Historic Preservation District(s) to help reinforce cultural resources and opportunities in the community.

Land use policy, further, provides opportunities which support and achieve a high quality of life for the City's residents. It accommodates a mix of residential and supporting commercial service, educational, recreational, cultural, and entertainment uses.

Specific opportunities to continue and strengthen San Bernardino's residential-serving role provided by land use policy include:

- A. Preservation of existing "stable" and significant residential neighborhood;
- B. Recycling and upgrading of "mixed-density" and deteriorated residential neighborhoods;
- C. Expansion of high quality residential development into the City's hillsides and periphery within the constraints of environmental and infrastructure resources;
- D. Development of higher quality multi-family residential units (architecture, structure, inclusion of site amenities, etc.) which are compatible with their neighborhood setting;
- E. Increased compatibility between residential and abutting commercial and industrial land uses;
- F. Maintenance and enhancement of neighborhood-serving commercial uses;
- G. Continuation of existing and development of new "village-like" neighborhood commercial centers;
- H. Recycling of under-utilized commercial areas into more efficient and economically viable centers along portions of Mount Vernon Avenue, Base Line Street, and Highland Avenue;
- I. Establishment of a community "ethnic" themed commercial center on Mount Vernon, between 4th and 8th Streets; and
- J. Continuation and enhancement of existing and new development of parks, schools, public services, and other community-serving uses uniformly distributed throughout the City.
- K. Development of higher quality multi-family residential units in proximity to Secombe Lake Park.

The land use and urban design policy contained in this plan is intended to establish order and focus for the City's land use pattern. It organizes land uses around key region- and community-serving districts and corridors (downtown, Tri-

City/Commercenter, "Regional Opportunities Corridor", Norton, Cal State, railroad yards, Waterman Avenue, corporate park, local-serving commercial "strips" and "villages", etc.), links these by transportation, and provides linkages to major open space resources (Santa Ana River, Cajon and Lytle Creeks, and the San Bernardino Mountains). These key "centers" are differentiated by use and development intensity and should be recognized throughout the City and region.

Land Use and Urban Design policy provides for the linkage of development with available and expanded streets, transit, sewers, water, storm drainage, energy, communication, and other public infrastructure and services. It is intended that the timing of development be phased with the provision of necessary infrastructure/service improvements and their costs be distributed on a pro rata basis to beneficiaries.

Plan policies provide for the protection of significant environmental habitats in the City; particularly those located in the foothill drainages, Santa Ana River, Cajon Creek, and Lytle Creek. In addition, the Plan provides for the limitation of critical development in high earthquake hazard areas (fault zone and liquefaction areas) and increased standards for development in high wind and fire hazard areas.

The key element of the Land Use and Urban Design policy is the Land Use Plan (contained in the rear pocket), which depicts the permitted type and density/intensity of use for all lands within the planning area. Lands have been categorized according to residential, commercial, industrial, office-industrial, and public uses. Table 4 indicates these categories, their principal uses, and densities.

Development in accordance with the Land Use Plan will accommodate 28,120 additional dwelling units. Of these, 15,398 are single-family units (55%) and 12,722 are multi-family units (45%). This would accommodate a population increase of 70,300. The Plan will permit the development of an additional 35,629,620 square feet commercial (office and retail) and 53,218,123 square feet of industrial and office-industrial uses. Table 5 indicates the amount of new development which will be accommodated by each land use category.

Relationship to Open Space

As discussed in the Introduction, the General Plan is organized according to four major topics: Community Development, Infrastructure and Community Services, Environmental Resources and Hazards. Open space is not differentiated as a separate element (chapter or section) of the Plan, but is addressed throughout.

The City's General Plan addresses open space through maps, text and goals, objectives, policies and implementation measures. The text includes background data and an assessment for each topic. From this, the goals, objectives, policies and implementation measures were formulated. Table 6 shows the sections of the Plan and the various maps that address open space. Table 7 lists the Open Space Resources and summarizes

TABLE 4
General Plan Land Use Categories

<u>Category</u>	<u>Location(s)</u>	<u>Principal Uses</u>	<u>Development Intensity/Density</u>
Residential Estate			
RE	Locations throughout the City.	Single-family residential units.	One gross acre per unit.
Residential Low			
RL	Locations throughout the City.	Single-family residential units.	3.1 units per gross acre (10,800 square foot lot minimum).
RL-3.5	Tracts 12756 and 13172	Single-family residential units.	3.5 units per gross acre (10,800 square foot lot minimum).
Residential Suburban			
RS	Locations throughout the City.	Single-family residential units.	4.5 du/gross acre (7,200 square foot lot minimum).
Residential Urban			
RU-1	Locations throughout the City.	Single-family residential units, duplexes, second dwellings, mobile home parks, mobile home subdivisions, small lot subdivisions, and multi-family units.	9 du/gross acre (minimum lot: 7,200 square feet, except for small lot subdivisions which shall be 5,000 square feet) Senior/Senior Congregate Care: 14 du/gross acre maximum.
RU-2	Primarily older areas of the City, near downtown, east and west of I-215.	All uses permitted in RU-1.	Same densities as RU-1, except minimum lot size of 6,200 square feet for existing legal lots of record as of date of General Plan adoption.

TABLE 4 (Cont.)

<u>Category</u>	<u>Location(s)</u>	<u>Principal Uses</u>	<u>Development Intensity/Density</u>
Residential Medium			
RM	Locations throughout the City.	Single-family dwelling units and multi-family dwelling units.	14 du/gross acre Senior/Senior Congregate Care: 50% bonus
Residential Medium-High			
RMH	Locations throughout the City.	Single-family and multi-family dwelling units.	24 du/gross acre Senior/Senior Congregate Care: 50% bonus
Residential High			
RH	Locations throughout the City.	Single-family and multi-family units.	36 du/gross acre Senior/Senior Congregate Care: 50% bonus
Hillside Management Overlay District			
	Hillside areas of 15% slope and greater.	Single-family detached and attached units.	Development yield: 0-15% slope 2.0 du/gross acre 15-25% slope 1.0 du/gross acre 25-30% slope 0.5 du/gross acre 30%+ slope 0.1 du/gross acre Density transfer standards: density may be increased by 50% allowed in the slope category Siting standards: 0-25% slope: single-family and attached units on cut and fill pads and stepped footings 25-40% slope: residences on stepped footings, with minimum grading 40%+ slope: no development, allowable units may be transferred to lesser slopes.

TABLE 4 (Cont.)

<u>Category</u>	<u>Location(s)</u>	<u>Principal Uses</u>	<u>Development Intensity/Density</u>
Commercial Neighborhood			
CN	Neighborhood "nodes" scattered throughout the City.	Local serving commercial uses, such as convenience food stores (smaller than supermarkets), cleaners, shoe repairs, notions, florists, and similar uses.	FAR 0.35
Commercial Office			
CO-1	Scattered locations throughout the City.	Administrative and professional offices, such as financial institutions, medical or dental offices, related commercial facilities which support office uses, and hospitals.	FAR 1.0 (except for hospitals, where the intensity may be increased on case-by-case project review and public input). Senior/Senior Congregate Care: 54 du/acre maximum.
CO-2	Arrowhead Avenue and other scattered locations	CO-1 uses, except hospitals, permitted in adaptively-reused residential units and new construction which is architecturally expressive of a residential structure.	FAR 0.35 Senior/Senior Congregate Care: 54 du/acre maximum.
Commercial General			
CG-1	Commercial corridors throughout the City, unless designated otherwise, and intersection nodes.	General retail, restaurants, furniture stores, household goods, supermarkets, drugstores, liquor stores, building materials and supplies, small offices, and similar uses.	FAR 0.7
CG-2	Mount Vernon (Highland to 8th), Base Line, and other commercial corridors	All CG-1 uses and medium/medium-high residential with CUP.	Commercial: FAR 0.7 Residential: a. Mt. Vernon and Base Line west of I-215: 14 units/net acre b. Base Line east of I-215: 24 units/net acre Senior/Senior Congregate Care: 50% bonus.
CG-3	Areas adjacent to California State University	Limitation of CG-1 uses to those which primarily serve students and faculty and university related offices and research facilities.	FAR 0.7

TABLE 4 (Cont.)

<u>Category</u>	<u>Location(s)</u>	<u>Principal Uses</u>	<u>Development Intensity/Density</u>
CG-4	"Theme/Specialty Centers": Mount Vernon Avenue between 4th and 8th Streets, Railroad Depot and adjacent properties, and others as subsequently defined.	Limited CG-1 uses; emphasis on "specialty" retail, restaurants, theaters, cultural facilities, and social service uses and excluding furniture stores, "chain" supermarkets, and drugstores, and building materials and supplies.	FAR 1.0
Commercial Regional			
CR-1	Central City and Inland Center Malls	Department store anchors with supporting retail, restaurants, entertainment, banks, and similar uses.	FAR 1.5
CR-2	Downtown	Government, professional, and corporate offices; hotel and convention facilities; entertainment; cultural/historic; supporting retail uses; restaurants; and residential (market-rate and senior/congregate care).	Commercial and office: FAR 3.0 Residential: 54 du/gross acre. Residential vertically integrated with commercial: +FAR 1.0. Senior/Senior Congregate Care: 108 du/acre maximum.
CR-3	Tri-City/Commercenter and "Club" Areas	Corporate offices, research and development, hotel and motel, restaurants (excluding drive-thrus in the Tri-City/Commercenter area only), entertainment, warehouse retail, and supporting retail.	Commercial: 0.7 Office and overnight accommodations: FAR 3.0 R&D: FAR 1.5
CR-4	Auto Plaza Area	Automobile sales and related uses.	FAR 0.7
Commercial Heavy			
CH	Locations throughout the City.	Commercial uses that require outdoor sales, display, and/or storage areas (e.g., auto and truck repair facilities, lumberyards, and related building materials and hardware sales, plant nurseries), light industrial manufacturing and storage facilities, excludes typical neighborhood commercial uses.	FAR 0.7

TABLE 4 (Cont.)

<u>Category</u>	<u>Location(s)</u>	<u>Principal Uses</u>	<u>Development Intensity/Density</u>
Office Industrial Park			
OIP	Waterman Avenue and other selected locations	Corporate offices, limited research and development and light industrial (no outdoor storage or equipment), and supporting retail, restaurant, and financial offices integrated with the primary use.	FAR 1.0
Industrial Light			
IL	Locations throughout the City.	Warehousing, manufacturing, research and development, mini-storage, outdoor display and storage, and similar uses; sales of products manufactured on-site is permitted.	FAR 0.75
Industrial Heavy			
IH	Locations scattered throughout the City.	Uses that require large parcels of land or outdoor storage areas; e.g., steel fabrication plants, junk yards, and similar uses.	FAR 0.75
Industrial Extractive			
IE	Locations along the Cajon and Lytle Creek Washes	Uses which mine and process mineral resources.	Not appropriate.
Public/Quasi-Public			
PCR	Locations scattered throughout the City.	Public and private golf courses, baseball stadiums, arenas, exhibition, convention, sporting facilities, entertainment, hotels, restaurants, specialty commercial, farmers market, open space, and similar uses.	To be determined on case-by-case basis.
PFC	Publicly owned flood control areas	Flood control facilities, open spaces, and extractive uses	Not applicable
PP	Public Parks (existing)	Park and recreation facilities and open space	Not applicable
PF	Public Facilities (existing)	Public facilities and open space	Not applicable

TABLE 5

Estimated General Plan Buildout¹
Changes From Existing Use

<u>Use</u>	<u>Acres of Change²</u>	<u>Buildout Dwelling Units</u>	<u>Building Square Feet</u>
Residential			
Estate (RE)	1,019	646	
Low (RL)	1,502	4,026	
Suburban (RS)	899	3,358	
Urban (RU)	995	5,273	
Medium (RM)	801	6,941	
Medium High (RMH)	155	2,929	
High (RH)	21	483	
Hillside Management	3,734	2,095	
Commercial			
Regional (CR) ³	101	588	5,065,528
General (CG) ⁴	556	1,781	13,230,643
Office (CO)	318		11,664,572
Neighborhood (CN)	43		1,266,485
Heavy	238		4,402,392
Industrial and Office-Industrial Park			
Light and Office (IL and OIP)	1,496		38,647,303
Heavy	557		14,570,820
Extractive	1,134		NA
Total			
Res		28,120	
Coml			35,629,620
Ind			53,218,123
Population Increase: 70,300			

Source: Envicom Corporation.

1. Includes City and Sphere of Influence.
2. Includes development of vacant lands, intensification of development (e.g., single-family to multi-family), and recycling to another use.
3. Includes multi-family residential at 54 units per gross acre on five percent of total CR-2 area.
4. Includes RM and RMH in CG-2 areas.

TABLE 6

Open Space Resource and General Plan Relationship

<u>General Plan Section</u>	<u>Related Maps</u>	<u>Open Space Resource</u>
Chap. 1, Community Development		
1.0 Land Use and Urban Design	Fig. 5, Generalized Land Use Fig. 41, Environmental Resources/Hazards Composite Overlay (Biological, Wind, Fire) Fig. 54, Seismic Hazards Overlay	All Public Health and Safety
3.0 Historical and Archaeological Resources	Fig. 8, Archaeological Sensitivities Fig. 11, Potential Historic Districts	Public Health and Safety Outdoor Recreation Outdoor Recreation
Chap. 2, Infrastructure and Community Services		
7.0 Utilities	Fig. 31, Geothermal Resources	Public Health and Safety, Managed Production of Resources
9.0 Parks and Recreation	Fig. 38, Parks and Recreation Facilities Fig. 41, Conceptual Equestrian Trail System	Outdoor Recreation Outdoor Recreation
Chap. 3, Environmental Resources		
10.0 Natural Resources		
A. Biological Resources	Fig. 42, Known Sensitive Elements Fig. 43, Biological Resource Management Overlay	Preservation of Plant and Animal Life Preservation of Plant and Animal Life
B. Mineral Resources	Fig. 44, Regionally Significant Aggregate Sectors	Managed Production of Resources

TABLE 6 (Cont.)

<u>General Plan Section</u>	<u>Related Maps</u>	<u>Open Space Resource</u>
11.0 Energy and Water Conservation	N/A	Managed Production of Resources
Chap 4, Hazards		
12.0 Geologic and Seismic	Fig. 47, Major Fault Locations Fig. 48, Liquefaction Susceptibility Fig. 51, Potential Subsidence Areas Fig. 52, Slope Stability and Major Landslides	Public Health and Safety Public Health and Safety Public Health and Safety Public Health and Safety
15.0 Wind and Fire	Fig. 61, Fire Hazard Areas	Public Health and Safety
16.0 Flooding	Fig. 62, One Hundred Year Floodplain	Public Health and Safety

TABLE 7
Open Space Resources and Programs

<u>Open Space Resource</u>	<u>Open Space Programs</u>
Managed Production of Resources	
<ul style="list-style-type: none">• Areas containing mineral deposits• Geothermal Resources	<ul style="list-style-type: none">• Figure 5 designates areas where extractive uses are permitted.• Implementation 10.11 provides for the designation of areas for extractive purposes. It also provides for compatible uses, buffers and interim uses.• Implementation 10.13 requires that all proposals for mineral extraction contain reclamation plans and both be prepared pursuant to the Surface Mining and Reclamation Act.• Implementation 1.1 requires the inclusion of permitted uses and standards in the Development Code.• Policies 1.4.1, 1.34.10, 1.34.11 address Implementation 1.1.• Policies 10.7.7-10.7.9, 10.8.1, 10.8.2, 10.8.5, and 10.9.1 address Implementation 10.11 and 10.13.• Figure 31 shows the location of geothermal resources.• Implementation 7.39 requires an education program pertaining to geothermal resources.• Implementation 7.40 requires the City to perform a geothermal feasibility review on certain buildings.• Policies 7.18.1-7.18.3 address these measures.

TABLE 7 (Cont.)

<u>Open Space Resource</u>	<u>Open Space Programs</u>
<ul style="list-style-type: none">• Areas for recharge of groundwater basins	<ul style="list-style-type: none">• Implementation 11.12 prohibits the discharge of hazardous materials into the groundwater and prohibits the location of septic systems in areas with high soil permeability. It also provides for slope stability measures and storm runoff improvements.• Policies 11.2.1-11.2.6 and 11.3.1 and 11.3.2 address Implementation 11.12.
<ul style="list-style-type: none">• Agriculture	<ul style="list-style-type: none">• Implementation 1.1 provides for standards in the Development Code to permit agriculture as an interim use.• Policy 1.4.2 addresses this measure.
Outdoor Recreation	
<ul style="list-style-type: none">• Areas of scenic, historic and cultural value	<ul style="list-style-type: none">• Figures 8 and 11 designate areas of archaeological, historical and cultural value sensitivities.• Implementation 3.1 requires the survey and inventory of all historic, cultural, architectural and archaeological resources.• Implementation 3.3 requires adoption of a Historic Preservation Ordinance.• Implementation 3.6 requires preparation of a Historic Preservation Overlay Zone to protect and enhance the environment of significant sites, structures and districts.• Policies 3.1.1-3.1.6, 3.1.10, 3.1.14, 3.2.6, 3.2.7, 3.3.2, 3.3.3 address these implementation measures.
<ul style="list-style-type: none">• Areas for park and recreation purposes	<ul style="list-style-type: none">• Figure 5 designates existing parks (PP), existing schools (PF) and public/quasi-public uses (PCR).• Implementation 9.1 and 9.2 require preparation of a Parks Master Plan to include siting of new facilities,

TABLE 7 (Cont.)

Open Space Resource

- Links between major recreation and open space areas (trails)

Open Space Programs

- improvements of existing facilities, timing and funding.
- Implementation 9.3 requires 5 acres of parkland per 1,000 population.
- Implementation 9.4 requires dedication of parkland or in-lieu fees.
- Implementation 9.12, 9.14, 9.15 and 9.16 provide for interagency coordination in the provision of parks and recreation facilities.
- Policies 9.1.1, 9.1.2, 9.1.3, 9.1.6, 9.1.7, 9.1.11, 9.1.12, 9.1.13, 9.1.14, 9.2.1-9.2.7, 9.3.1-9.3.4 address these measures.
- Figure 39 designates a conceptual equestrian trail system.
- Implementation 9.1 requires provisions for trails as part of the Parks Master Plan.
- Implementation 9.16 provides for interagency coordination in the provision of trails on and to public lands.
- Policies 9.1.8 and 9.1.9 address these measures.
- Implementation 10.6 requires the formulation of recommendations for the acquisition of property to establish a corridor to the National Forest Service via Cable Creek and/or Devil Canyon.
- Policies 10.3.2 and 10.4.1 address this measure.

Preservation of Natural Resources

- Areas for preservation of plant and animal life and areas for ecological/scientific study
- Figure 41 designates areas where potential biological resources are located.

TABLE 7 (Cont.)

<u>Open Space Resource</u>	<u>Open Space Programs</u>
<ul style="list-style-type: none">• Banks of rivers, streams and watersheds	<ul style="list-style-type: none">• Implementation 10.1 requires establishment and maintenance of a biological resources data base.• Implementation 10.2 requires standards and restrictions to be incorporated in the Development Code.• Policies 10.2.1-10.2.4, 10.2.6, 10.3.1-10.3.3, 10.4.1-10.4.3, 10.5.1 address these measures.
<p>Protection of Health and Safety</p> <ul style="list-style-type: none">• Geologic Hazards	<ul style="list-style-type: none">• Figure 41 designates areas where potential biological resources are located, including riparian areas.• Implementation 10.2 requires restrictions and standards to be included in the Development Code pertaining to the development in or adjacent to riparian corridors.• Policies 10.3.1-10.3.4 address this measure.• Implementation 11.15 requires standards and regulations in the Development Code pertaining to slope stabilization.• Policies 11.3.1 and 11.3.2 address this measure.

TABLE 7 (Cont.)

Open Space Resource

- Fire Hazards

- Flooding

- Hillside Management

Open Space Programs

- Implementation 12.4 requires a 50-foot setback from an active fault.
- Policies 12.1.1, 12.1.2, 12.2.1, 12.3.1-12.3.4, 12.4.1-12.4.8, 12.5.1, 12.5.2, 12.6.1-12.6.3, 12.7.1 and 12.7.2 address these measures.
- Figure 61 designates areas susceptible to wildland fires.
- Implementation 15.1 requires incorporation in the Development Code of the provisions of the Foothill Communities Protective "Greenbelt" Program pertaining to siting, access, water supply, vegetation, erosion control, etc.
- Policies 15.2.1-15.2.9 address this measure.
- Figure 5 designates areas for flood control uses.
- Figure 65 designates areas within the 100-year floodplain.
- Implementation 16.1 requires projects within the 100-year floodplain to be consistent with requirements in the Municipal Code. It also requires review of projects by the County Flood Control District.
- Policies 16.1.1-16.1.4 address this measure.
- The Draft Land Use Plan designates areas included in the Hillside Management Overlay.
- Implementation 1.1 requires inclusion in the Development Code of standards and restrictions.

TABLE 7 (Cont.)

Open Space Resource

Open Space Programs

- Implementation 1.2 requires inclusion of subdivision development and design standards in the Development Code.
- Implementation 1.6 and 1.7 include provisions for project review from the developmental and environmental standpoint.
- Policies 1.14.10-1.14.15 and 1.14.30-1.14.41 address these measures.

the actions that constitute the Open Space Program. Both tables list the Open Space Resources which are divided into four major headings: Preservation of Natural Resources, Managed Production of Resources, Outdoor Recreation and Public Health and Safety.

These tables represent information from all sections of the General Plan pertaining to open space compiled into one place. The various chapters and sections of the General Plan have the detail that may not be shown here.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for land use and urban design in the City of San Bernardino. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

ISSUE ONE: WHAT TYPES AND AMOUNTS OF LAND USE SHOULD BE ACCOMMODATED IN THE CITY?

Goal

It shall be the goal of the City of San Bernardino to:

- 1A Provide for the continuation and development of sufficient land uses to serve the housing, commercial, educational, cultural, recreational, and social needs of existing residents and population growth.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.1 Provide lands for the housing and commercial and public services for the City's existing population and growth of 70,300 persons.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.1.1 Designate lands currently developed with housing for continued residential, unless conversion to another use is provided for by policies of this Plan (I1.1).
- 1.1.2 Designate a minimum of 9,300 acres for the development of housing to accommodate population growth (I1.1).
- 1.1.3 Designate lands for a mix of residential unit types and densities, including:
- a. "Residential Estate (RE)": custom single-family residential units, at densities and standards in accordance with Policies 1.9.10 through 1.9.33.
 - b. "Residential Low (RL)": single-family residential units at densities and standards in accordance with Policies 1.10.10 through 1.10.23.

- c. "Residential Suburban (RS)": single-family residential units at densities and standards in accordance with Policies 1.11.10 through 1.11.32.
- d. "Residential Urban (RU-1 and RU-2)": single-family residential units, duplexes, second dwellings, mobile home parks and subdivisions, multi-family units and small lot subdivisions at densities and standards in accordance with Policies 1.12.10 through 1.12.35.
- e. "Residential Medium (RM)": single-family and multi-family residential units at densities and standards in accordance with Policies 1.13.10 through 1.13.40.
- f. "Residential Medium High (RMH)": single-family and multi-family residential units at densities and standards in accordance with Policies 1.13.10 through 1.13.40.
- g. "Residential High (RH)": single-family and multi-family residential units at densities and standards in accordance with Policies 1.13.10 through 1.13.40.

1.1.4 Designate a minimum of 103 acres of land to accommodate new neighborhood and community-oriented retail sales (food, clothing, building materials, etc.), services (finance, repair services, personal, etc.), entertainment, and other commercial uses which provide for the needs of residents and projected growth, designating these areas as:

- a. "Commercial Neighborhood (CN)": at intensities and standards in accordance with Policies 1.26.10 through 1.27.33.
- b. "Commercial General (CG-1 through 4)": at intensities and standards in accordance with Policies 1.19.10 through 1.25.35 (I1.1).

1.1.5 Allow for the continuation of existing public, cultural, educational and similar facilities in areas of the City designated as:

- a. "Public Facilities (PF)"
- b. "Public/Commercial Recreation (PCR)"

and establishing standards and regulations for the development of new facilities to provide for the needs of population growth (I1.1, I1.2, I1.4, I1.5, and I1.12).

- 1.1.6 Allow for the continuation of existing parks in areas of the City designated as "Public Parks (PP)" and establish standards and regulations for the development of a minimum of 807 acres of new parks to provide for the needs of population growth (I1.1, I1.2, I1.4, I1.5, and I1.12).
- 1.1.7 Allow for the provision of governmental administrative, health, social, religious, and other similar services to meet the needs of existing and future residents; designating lands for the continuation of existing public and quasi-public agencies and establishing standards and guidelines for the development of new facilities (I1.1).
- 1.1.8 Establish standards and allow for the development of specialty commercial areas of the City, which capitalize on the City's historical and ethnic heritage designated as "General Commercial-Specialty/Theme (CG-4)"(I1.1 and I1.4).
- 1.1.9 Establish "Hillside Management Overlay District" for detached and attached single-family units at densities and standards in accordance with Policies 1.14.10 through 1.14.41 (I1.1).

Goal

It shall be the goal of the City of San Bernardino to:

- 1B Provide employment opportunities for existing and future residents of the City and those of adjacent communities.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.2 Provide for the continuation and development of land uses which offer a minimum of 27,000 new employment opportunities.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.2.1 Allow for the development of a minimum of 90 acres to accommodate new employee-generating business/professional office uses and 1,000 acres to accommodate new industrial uses in areas of the City designated as:
 - a. "Commercial Office (CO-1 and CO-2)"
 - b. "Office/Industrial Park (OIP)"

- c. "Industrial Light (IL)"
- d. "Industrial Heavy (IH)"
- e. "Industrial Extractive (IE)"
- f. "Commercial Heavy (CH)"
- g. Neighborhood and community-serving commercial uses (as defined in Policy 1.1.4)
- h. Regional-serving commercial areas (as defined in Policies 1.3.1 through 1.3.11) (I1.1).

Goal

It shall be the goal of the City of San Bernardino to:

- 1C Provide for the continuation and development of land uses which provide for the needs of and attract regional populations, in addition to local residents.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.3 Provide for the development of a diversity of region-serving uses, including a minimum of 75 acres for expanded commercial-retail and sufficient acreage for expanded governmental, corporate office, hotel and convention, entertainment, cultural, educational, and similar uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.3.1 Allow for the provision of region-serving governmental and administrative uses in the downtown area, designated as "Commercial Regional-Downtown (CR-2)" (I1.1).
- 1.3.2 Allow for the development of region-serving corporate offices in areas designated as:

- a. "Commercial Regional-Downtown (CR-2)"
 - b. "Tri-City/Commercenter (CR-3)"
 - c. "Office/Industrial Park (OIP)" (I1.1).
- 1.3.3 Allow for the development of region-serving hotel and convention, entertainment, cultural, and supporting uses in areas designated as:
- a. "Commercial Regional-Downtown (CR-2)"
 - b. "Tri-City/Commercenter (CR-3)" (I1.1).
- 1.3.4 Allow for the development of region-serving promotional and warehouse retail uses in areas designated as "Commercial Regional: Tri-City/Commercenter (CR-3)" (I1.1).
- 1.3.5 Allow for the continuation and intensification of the National Orange Show facilities as a major regional-serving recreation, entertainment, and cultural use in areas designated as "Commercial Recreation (PCR)" (I1.1, I1.4, and I1.5).
- 1.3.6 Allow for the possible commercial/industrial joint-use of Norton Air Force Base in areas designated as "Public Facilities (PF)" and adjacent lands designated as "Light Industrial (IL)" and "General Commercial (CG-1)" (I1.1 and I1.4).
- 1.3.7 Allow for the continuation and expansion of California State University San Bernardino as a major region-serving educational and cultural facility and adjacent lands for the development of supporting and related commercial services, research and development industries, and professional offices in areas designated as "General Commercial-University (CG-3)" (I1.1, I1.2, and I1.4)
- 1.3.8 Allow for the provision of uses in commercial areas which provide for the short-term needs of visitors to the City and those enroute to or leaving the San Bernardino Mountains; including motels/hotels, restaurants, camping equipment, automotive repair, and similar uses in areas designated as "General Commercial (CG-1)" (I1.1)
- 1.3.9 Allow for the expanded development of region-serving automobile sales facilities in the area designated as "Commercial Regional-Auto Plaza (CR-4)" (I1.1) and "General Commercial (CG-1 and 2)" (I1.1).
- 1.3.10 Allow for the development of specialty and theme-oriented commercial centers which reflect the City's historical and ethnic heritage and serve re-

gional as well as local populations in areas designated as "General Commercial-Theme/Specialty (CG-4)" (I1.1).

- 1.3.11 Allow for the introduction of major regional-serving commercial uses which may currently not be present and could significantly benefit the City, provided that they do not incur unacceptable adverse environmental impacts, in areas between downtown and the Tri-City/Commercenter area (I1.1, I1.4-I1.9, I1.11, and I1.12).

Goal

It shall be the goal of the City of San Bernardino to:

- 1D Provide for uses which capitalize on and respect the City's natural environmental resources.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.4 Provide for the development of uses which capitalize on the available natural resources; including mineral and agricultural production and open spaces.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.4.1 Accommodate mineral production activities in areas designated as "Industrial Extractive (IE)" (I1.1)
- 1.4.2 Establish standards to allow agricultural production as an interim use in Class I and II soils areas; including fruit and vegetable crops, nursery, and similar uses (I1.1).
- 1.4.3 Require that development be designed and sited to maintain the character of the City's significant open spaces (I1.1, I1.2, and I1.6).

Goal

It shall be the goal of the City of San Bernardino to:

- 1E Provide for the development of public infrastructure to support existing and future residents, businesses, recreation and other uses.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.5 Set aside lands for the continued operation and expansion of public infrastructure which supports residents and businesses and protects them from environmental hazards.

Policy

It shall be the policy of the City of San Bernardino to:

- 1.5.1 Allocate lands for the continuation and expansion of public streets and highways in accordance with the Master Plan of Highways, as defined by Figure 29 (I1.1, I1.2, I1.4, I1.5, and I1.12).
- 1.5.2 Allow for the continuation and improvement of flood control areas designated as "Public Flood Control (PFC)" and in accordance with Policies 1.38.10 through 1.38.11 (I1.1, I1.2, I1.4, I1.5, and I1.12).
- 1.5.3 Allow for the continuation and development of utility corridors (energy, sewer, water, telecommunication, etc.) to provide for existing and future land uses; establishing standards for the development of new surface and sub-surface facilities (I1.1, I1.2, I1.4, I1.5, and I1.12).

Goal

It shall be the goal of the City of San Bernardino to:

- 1F Ensure that the types of land uses developed in the City complement and do not adversely affect the quality of life and health of the City's residents and businesses.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.6 Control the development of land uses which may adversely impact the character of the City and quality of life of its residents.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.6.1 Control the development of industrial and other uses which use, store, produce or transport toxics, air emissions, and other pollutants; requiring

adequate mitigation measures confirmed by environmental review (I1.1, I1.6, and I1.7).

- 1.6.2 Control the location and number of alcohol sales, adult bookstores and businesses, game arcades and other community-sensitive uses, based on proximity to residences, schools, religious facilities, and parks in accordance with legislative and legal requirements (I1.1, I1.6, and I1.7).
- 1.6.3 Require Police Department review of uses which may be characterized historically by high levels of noise, nighttime patronage, and/or rates of crime; providing for the conditioning or control of use to prevent adverse impacts on adjacent residences, schools, religious facilities, and similar "sensitive" uses (I1.1, I1.6, I1.7, and I1.8).

ISSUE TWO: HOW SHOULD LAND USES BE DISTRIBUTED THROUGHOUT THE CITY?

Goal

It shall be the goal of the City of San Bernardino to:

- 1G Achieve a pattern and distribution of land uses which
- a. retain and enhance established residential neighborhoods, commercial and industrial districts, regional-serving uses, recreation and amenities;
 - b. allow for the infill and recycling of areas at their prevailing scale and character;
 - c. provide for the revitalization, adaptive reuse, and upgrade of deteriorated neighborhoods and districts;
 - d. allow for the intensification of commercial and industrial uses and mixed-density in deteriorated residential neighborhoods which do not merit preservation;
 - e. accommodate expansion of development into vacant and low-use lands within environmental and infrastructure constraints;
 - f. maintain and enhance significant environmental resources;
 - g. provide distinctive and compatible residential neighborhoods and commercial and industrial districts and nodes;

- h. provide a diversity of areas characterized by differing functional activity and scales and intensity of uses;
- i. are cohesive and uniform in nodes and districts and prevent "leap frog" development;
- j. locate commercial and human services, recreation, and jobs in proximity to residents;
- k. locate region-serving uses only along major transportation corridors;
- l. provide adequate linkages and transitions to adjacent communities;
- m. provide a high quality of life and secure environment for the City's residents and businesses; and
- n. establish San Bernardino as a unique and distinctive place in the Inland Empire and southern California region.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.7 Provide for the evolution of the existing random pattern of land uses into a network of interrelated activity clusters and corridors which encompass commercial, governmental, industrial, and/or high density residential uses, with intervening areas developed for lower intensity residential use, and low intensity, high quality residential uses in the foothills which are sited to maintain the foothills' unique environmental character.

Policies

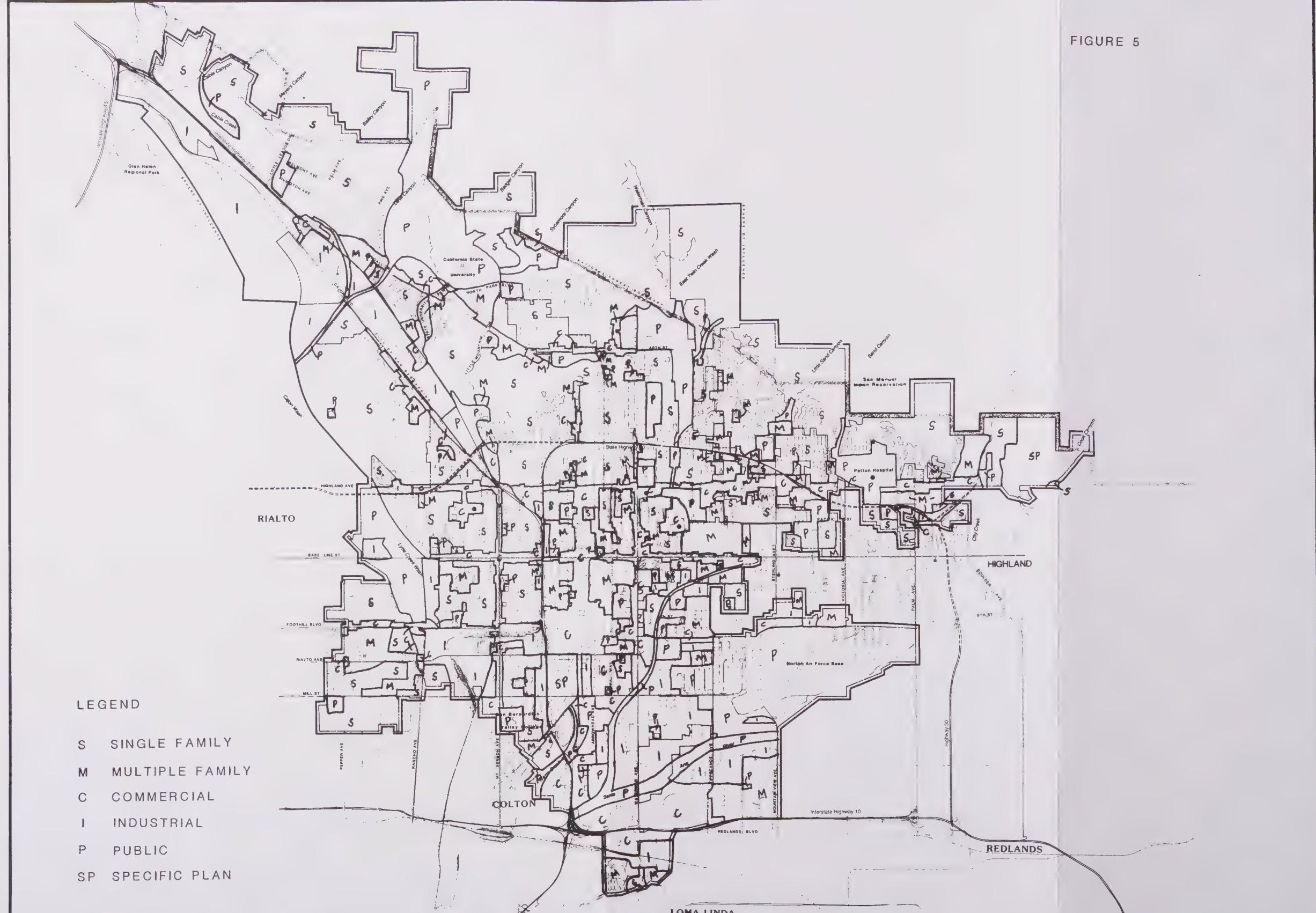
It shall be the policy of the City of San Bernardino to:

- 1.7.1 Accommodate new development, adaptive reuse, and renovation in accordance with the Land Use Plan Map¹ (generalized in Figure 5) (I1.1 through I1.5, I1.16, and I1.17).
- 1.7.2 Require that all development in each land use classification adheres to the requirements and standards of the zone in which it is located (I1.1, I1.2, I1.4, I1.6, I1.7, and I1.12).

1. Official General Plan Land Use Map at a scale of 1"=1,000' is available for review at City of San Bernardino City Hall, Department of Planning and Office of the City Clerk.



FIGURE 5



GENERALIZED LAND USE PLAN

City of San Bernardino General Plan

ENVICOM CORPORATION in association w

**DKS ASSOCIATES • NATELSON - LEVANDER - WHITNEY
ALBERT A. WEBB ASSOCIATES •
ROSENOW SPEVACEK GROUP, INC. • SAGE ASSOCIATES**

SCAL

ACRES

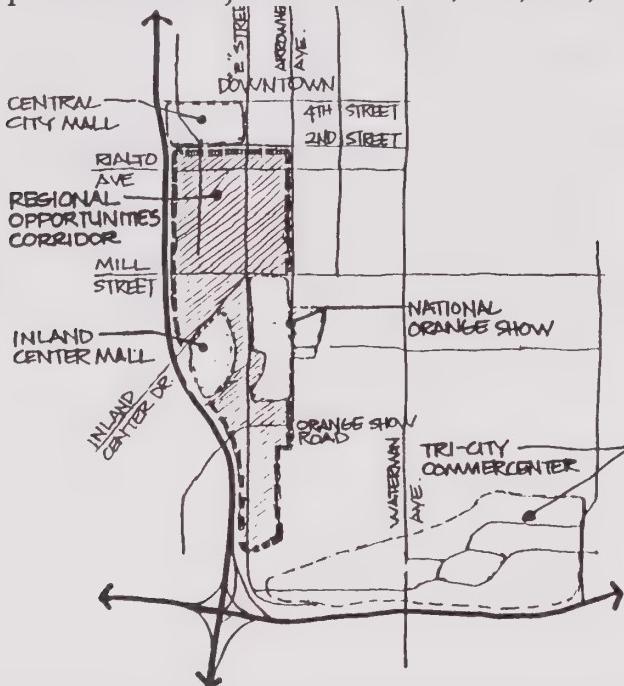
NORTH





- 1.7.3 Permit the adjustment of land use classification boundaries to coincide with legal parcel boundaries, provided that:
- a. land use compatibility is maintained along all parcel boundaries
 - b. the integrity of each land use district is maintained
 - c. traffic, noise, visual, infrastructure, and other impacts can be adequately mitigated (I1.1, I1.2, I1.4, I1.6, I1.7, and I1.12).
- 1.7.4 Permit the adjustment of the location of designated commercial-residential boundaries to facilitate a more uniform pattern development and sufficient area to create economically viable uses; provided that:
- a. there is no significant intrusion into residential neighborhoods;
 - b. vehicular access is restricted to the commercial frontage; and
 - c. such modification is subject to public review (I1.1, I1.4, I1.5, I1.6, I1.7, and I1.12).
- 1.7.6 Allow for the consideration, through a Specific Plan, of changes in the permitted use and increases in the development density and height to accommodate significant region-serving uses in the areas between downtown and the Tri-City/Commercenter area provided that the uses:
- a. contribute significant economic and social benefits to the City;
 - b. exhibit a distinctive level of architectural design and site planning merit;
 - c. incorporate streetscape and other public open urban design amenities which contribute a high quality image and benefit the community;

- d. adequately mitigate impacts attributable to their increased scale and density; and
- e. are compatible with adjacent uses (I1.1, I1.4, I1.5, I1.6, I1.7, and I1.12).



1.7.7

Permit the vertical and horizontal intermixing of commercial and multi-family residential uses, incorporating necessary design elements to ensure their compatibility, in the downtown (CR-2) (I1.1).

1.7.8

Allow the consolidation of abutting residential parcels and commercial parcels into unified mixed-use development projects where the uses are intermixed on both sites containing an aggregate site area of at least 60,000 square feet, provided that:

- a. the total yield of development (dwelling units and building square footage) does not exceed that permitted by the underlying land use classification;
- b. at least 80 percent of the maximum allowable residential density is developed on-site;
- c. no residential uses are located along the ground floor of the commercial frontage;
- d. only residential uses are developed along the residential street frontage;
- e. a development plan or Conditional Use Permit is prepared and approved that demonstrates that the project

- (1) is compatible with and complements adjacent uses;
 - (2) maintains the scale and character of existing development; and
 - (3) adequately mitigates traffic, noise, light and glare, and other environmental impacts, and;
- f. the project does not decrease the supply of neighborhood-serving commercial uses (I1.1, I1.2, I1.4-I1.7, and I1.12).
- 1.7.9 Permit the continuation of uses which exist at the time of the adoption of the Plan which do not conform to the land use intent of the zone; allowing for their minimal expansion (I1.1, I1.4, I1.5, I1.12).
- 1.7.10 Allow for the reconstruction of residential buildings destroyed by a catastrophe to their preexisting density in residential zones wherein the permitted density is less than the preexisting building (I1.1, I1.4, I1.5, and I1.12).
- 1.7.11 Establish the following as the principal and highest intensity activity nodes/corridors of the City, as depicted in Figure 6.
- a. Downtown (CR-1 and CR-2)
 - b. Tri-City/Commercenter and Club areas (CR-2)
 - c. "Regional Opportunities" Corridor linking downtown with Tri City; including the Inland Center and National Orange Show nodes (CR-1, CG-1, and adjacent IL)
 - d. Norton Air Force Base and abutting commercial (CG-1) and industrial lands (IL)
 - e. California State University San Bernardino (PFC) and abutting commercial lands (CG-3) (I1.1).
 - f. Santa Fe railroad yards (IH) and abutting commercial (CG-4) and industrial lands (IL and IH)
 - g. Waterman Avenue Corridor, between the Santa Ana River and 3rd Street (OIP)
 - h. Auto Center (CR-4) (I1.1, I1.4, and I1.12)

- 1.7.12 Provide for the evolution of Mount Vernon Avenue and Base Line Street into a series of high-activity commercial centers; including the development of specialty ethnic-themed commercial village on Mount Vernon between 4th and 8th Streets (I1.1, I1.4, and I1.12).
- 1.7.13 Continue community-serving commercial districts along Highland Avenue, 40th Street, Cajon Boulevard, Mount Vernon Avenue, Base Line Street, and 9th Street and Waterman Avenue (I1.1).
- 1.7.14 Establish community-serving commercial nodes at other key intersections throughout the City, as designated on the Land Use Policy Map (I1.1).
- 1.7.15 Establish the following as the principal industrial areas of the City:
- a. West and southwest of Norton Air Force Base
 - b. West of Interstate 215, south of Foothill Boulevard, east of Rancho Avenue, north of Rialto Avenue (and areas flanking the railroad tracks to the south)
 - c. Between Interstate 215 and Cajon Boulevard, north of University Parkway (I1.1).
- 1.7.16 Allow for the continuation and development of new and used car dealerships in all General Commercial areas, except the "Specialty" and "University-related" areas (CG-3 and CG-4), along major and minor arterials, with a Conditional Use Permit (I1.1 and I1.6).
- 1.7.17 Allow for the development of auto-related uses in General Commercial areas (CG-1, and CG-2) and the Auto Plaza area (CR-4) with a Conditional Use Permit (I1.1 and I1.6).
- 1.7.18 Provide for the prevailing pattern of single-family residential uses with multi-family residential uses located adjacent to existing and planned commercial services and public transportation corridors throughout the community (I1.1).
- 1.7.19 Allow for the development of senior citizen and senior congregate care housing facilities within the downtown (CR-2), Mount Vernon-Baseline areas (CG-2), multi-family residential areas (RU-1 and RU-2, RM, RMH, and RH), and commercial office areas (CO-1 and CO-2), provided that they are located in proximity to public transportation, supporting commercial, and health and social services (I1.1).
- 1.7.20 Allow for the consideration and adoption of specific plans and overlay districts which modify the use, intensities and/or development guidelines

stipulated in this Plan, anywhere in the City. If such specific plan or overlay district is to be adopted, the General Plan shall be amended to maintain consistency (I1.1, I1.4, I1.5, I1.6, I1.7).

- 1.7.21 Consider, by Conditional Use Permit, the expansion of commercial lot depths along commercial corridors to accommodate the inclusion of parking with the commercial use, unless this adversely impacts adjacent residential neighborhoods (I1.1 and I1.6).

ISSUE THREE: WHAT SHOULD BE THE FUNCTIONAL ROLE, USES PERMITTED, AND PHYSICAL FORM AND CHARACTER OF THE CITY'S LAND USE DISTRICTS?

Goal

It shall be the goal of the City of San Bernardino to:

- 1H Continue existing and establish new residential, commercial, industrial, open space, and public districts which are uniquely characterized by their functional role, permitted uses, density/intensity, and physical form.

RESIDENTIAL

Objective

It shall be the objective of the City of San Bernardino to:

- 1.8 Provide lands to accommodate housing units which meet the diverse economic and social needs of the residents; locating development to
- retain the scale and character of existing residential neighborhoods;
 - facilitate the upgrade and intensification of declining and mixed-density residential neighborhoods; and
 - allow expansion into vacant and low-intensity use lands within infrastructure and environmental constraints.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.8.10 Permit a range of residential unit types, including low-density estate and rural, single-family detached, single-family attached (duplex and triplex),

multi-family townhomes, condominiums, and apartments, and housing for special needs (seniors, physically disadvantaged, ill, etc.) in areas designated for "Residential Estate" (RE), "Residential Low" (RL), "Residential Suburban" (RS), "Residential Urban" (RU-1 and RU-2), "Residential Medium" (RM), "Residential Medium High" (RMH), and "Residential High" (RH) (I1.1 and I1.2).

Design and Development Guidelines

- 1.8.30 Define a minimum and maximum size for each type and density of housing unit to maintain the scale and character of existing residential neighborhoods and minimize the impacts of building bulk and mass (I1.1).
- 1.8.31 Establish zoning which encourages developers to design residential projects which maintain the scale and rhythm of the existing lot divisions of 7,200 square feet and larger, or use other creative design and planning solutions which establish and maintain a distinctive character and environment for existing residential neighborhoods (I1.1).
- 1.8.32 Encourage the consolidation of small residential lots in the downtown area into larger lots of sufficient size to economically support multi-family residential development (I1.1, I1.12, and I1.13).
- 1.8.33 Require that developers achieve a high level of architectural design of all residential development (I1.1 and I1.9).
- 1.8.34 Establish minimum property setbacks for all residential zones; to ensure maintenance of the residential character and adequate open space for all neighborhoods (I1.1 and I1.6).
- 1.8.35 Apply the Hillside Management Overlay District regulations as supplementary development regulations to underlying land use designations so that development in these areas occurs in such a manner that promotes the purposes and intent of Objective 1.14 and the policies of this section (I1.1).

a. Residential Estate

Objective

It shall be the goal of the City of San Bernardino to:

- 1.9 Promote the development of low-density residential units located on large lots and conveying an "estate" and "rural" character.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Use, Density and Height

- 1.9.10 Permit the development of residential units at a density of a minimum of one gross acre per unit and height of three stories or 45 feet in areas designated as "Residential Estate" (RE) (I1.1 and I1.2).

Design and Development Guidelines

- 1.9.30 Require that the residential site and unit be designed to reflect the rural setting and the physical characteristics of the site and establish a high quality, "upscale" character including:
- a. maintaining the site in its natural topographic character to the extent practical and feasible;
 - c. use of fire-retardant building materials which complement the setting;
 - d. use of architectural design styles which complement and do not "dominate" the setting;
 - e. siting of structures to "fit" with topography and vegetation;
 - f. linkages to equestrian trails when the site is adjacent to a master planned trail (I1.1, I1.6, and I1.9).
- 1.9.31 Encourage the development of "high quality" estate subdivisions; incorporating consistent fencing and signage, bridal and pedestrian trails, interconnecting greenbelts, and community amenities (such as clubhouse, health club, tennis courts, swimming pools, etc.) (I1.1, I1.2, I1.4, I1.6, and I1.9).
- 1.9.32 Establish and enforce standards for property maintenance (debris and weed removal, storage of automobiles, recreational vehicles, and boats, etc.) (I1.1, I1.2, and I1.15).

b. Residential Low

Objective

It shall be the objective of the City of San Bernardino to:

- 1.10 Promote the development of low-density, large lot, high quality single-family detached residential units.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Use, Density, and Height

- 1.10.10 Permit the development of single-family detached residential units at a density of up to 3.1 units per gross acre and height of 2.5 stories (35 feet) in areas designated as "Residential Low" (RL) (I1.1 and I1.2).
- 1.10.11 Permit the development of single-family detached residential units at a density of up to 3.5 units per gross acre and height of 2.5 stories (35 feet) in Tract 12756 and 13172.

Design and Development Standards

- 1.10.30 Require a minimum of 10,800 square feet per lot (I1.1 and I1.2).
- 1.10.31 Require that residential units and sites be designed to convey a "high quality" image, including:
- a. use of architectural design idioms which complement and do not "dominate" the setting;
 - b. use of building materials, colors, and forms which contribute to a "neighborhood" character;
 - c. use of extensive site landscape; and
 - d. linkages to equestrian and/or pedestrian trails when the site is adjacent to a master planned trail (I1.1 and I1.9).

- 1.10.32 Encourage the development of "high quality" large lot residential subdivisions; incorporating interconnecting pedestrian paths and greenbelts, consistent and well designed street signage, entry signage or monument, community amenities (such as clubhouse, meeting rooms, swimming pools, tennis courts, health club, etc.), and similar uses (I1.1, I1.2, I1.4, and I1.6).

c. Residential Suburban

Objective

It shall be the objective of the City of San Bernardino to:

- 1.11 Promote the development of single-family detached units in a high quality suburban setting.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Use, Density, and Height

- 1.11.10 Permit the development of single-family detached residential units at a density of up to 4.5 units per gross acre and height of two and one-half stories including a loft (35 feet) in areas designated as "Residential Suburban" (RS) (I1.1 and I1.2).

Design and Development Guidelines

- 1.11.30 Require that the residential lots be developed at a minimum of 7,200 square feet (I1.1, I1.2, and I1.6).
- 1.11.31 Encourage the incorporation of greenbelts, pedestrian paths, and community amenities in a residential subdivision (I1.1, I1.2, I1.4, and I1.6).
- 1.11.32 Require residential subdivisions to be oriented away from arterials and other major highways; locating extensive landscape setbacks containing trees and shrubs and decorative walls along this frontage (I1.1 and I1.2).

d. Residential Urban

Objective

It shall be the objective of the City of San Bernardino to:

- 1.12 Promote the development of single-family detached and attached, duplex, mobile home parks, and small lot subdivisions where the intent is to consolidate lots to achieve more open space.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Use, Density, and Height

- 1.12.10 Permit the development of single-family detached units, mobile home parks, small lot single-family unit subdivisions, and multi-family units at a density of up to 9 units per gross acre and height of two stories and loft (35 feet) in areas designated as "Residential Urban" (RU-1 and RU-2) (I1.1 and I1.2).

- 1.12.11 Permit the development of senior citizen and senior congregate care housing to a maximum density of 14 units per net acre and height of two stories provided that a marketing and financing analysis is conducted which determines long-term feasibility; a plan is prepared for the conversion of seniors units to standard units, with a corresponding reduction in the number of units, if the project is not occupied by qualified seniors; and all Code requirements are met (I1.1).

Density and Development Guidelines

- 1.12.30 Require the following minimum lot sizes:

- a. two single-family units or a duplex: 7,200 square feet in areas designated as RU-1;
- b. two single-family units or duplexes on existing lots of record, recorded as of the date of the adoption of this Plan, having 6,200 square feet or greater in areas designated as RU-2;
- c. small lot subdivisions: 5,000 square feet, as a part of a Planned Residential Development;
- d. clustering of permitted units (I1.1 and I1.2).

- 1.12.31 Require that areas designated for "Residential Urban" use in the Verdemont area be developed as a Planned Residential Development, incorporating equestrian and pedestrian linkages to off-site uses and extensive landscape and open space (incorporating trees and shrubs), subject to public review and Planning Commission approval (I1.2, I1.3, and I1.6).
- 1.12.32 Require that "Residential Urban" residential projects be designed to convey the visual sense of a low density residential neighborhood, including:
- a. variable structural setback;
 - b. inclusion of extensive landscape (incorporating trees and shrubs) along street frontages; and
 - c. architectural articulation of building facades to express a single-family character (I1.1, I1.2, and I1.6).
- 1.12.33 Encourage Planned Residential Developments in "Residential Urban" areas to incorporate interconnecting pedestrian paths and greenbelts, consistent and well-designed street signage, entry signage or monument, community amenities (such as clubhouse, swimming pools, tennis courts, health club, etc.), and similar uses (I1.1, I1.2, I1.4, and I1.6).
- 1.12.34 Require that all development within the RU-1 and RU-2 designations meet all normal setback and other development standard requirements (I1.1).

e. Residential Multi-Family

Objective

It shall be the objective of the City of San Bernardino to:

- 1.13 Promote the development of high-quality multi-family townhomes, condominiums, and apartments which convey a distinctive residential neighborhood character and are integrated with their setting.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Use, Density and Height

- 1.13.10 Permit the development of multi-family townhomes and apartments at a density of 9.1 to 14 units per net acre and height of three stories (42 feet) in areas designated as "Residential Medium" (RM) (I1.1 and I1.2).
- 1.13.11 Permit the development of multi-family condominiums and apartments at a density of 14.1 to 24 units per net acre and height of three stories (42 feet) in areas designated as "Residential Medium High" (RMH) (I1.1 and I1.2).
- 1.13.12 Permit the development of multi-family condominiums and apartments at a density of 24.1 to 36 units per net acre and height of four stories (56 feet) in areas designated as "Residential High" (RH) (I1.1 and I1.2).
- 1.13.13 Permit the development of senior citizen and senior congregate care housing at a density of 50 percent greater than that allowed in the residential zone in accordance with the conditions of Policy 1.12.11 (I1.1).

Design and Development Guidelines

- 1.13.30 Require a minimum lot size of 14,400 square feet for the development of multi-family units at the RM density; lots of smaller size shall be developed at the RU-1 and RU-2 density in accordance with Policies 1.12.10 through 1.12.35 (I1.1 and I1.2).
- 1.13.31 Require a minimum lot size of 20,000 square feet for the development of multi-family units at the RMH and RH densities; lots of 14,400 to 20,000 square feet may be developed at the RM density and lots of less than 14,400 square feet may be developed at the RU-1 and RU-2 density in accordance with Policies 1.12.10 through 1.12.35 (I1.1 and I1.2).
- 1.13.32 Require that multi-family residential developments convey a high quality and distinctive neighborhood character, including:
 - a. use of materials, colors, and forms that are typical of lower density residential areas;
 - b. differentiation of facades and elevations by the use of offset planes and cubic volumes, articulation of building details (columns, beams, etc.), inclusion of balconies, arcades, or recessed or projecting windows to convey a three-dimensional sense, and other techniques which avoid "box"-like structures;

- c. integration of exterior stairways into the architectural design; and
 - d. screening of rooftop mechanical equipment (I1.1, I1.2, and I1.6).
- 1.13.33 Encourage a vertical setback of the building elevations above the second story to minimize impacts of bulk and height at the ground elevation (I1.1).
- 1.13.34 Require that a percentage of the street-facing facade of the building at the graded elevation of the site be usable for occupiable space and entries, unless inappropriate, where the intent shall be preserved by the use of architectural design elements which shall visually convey the sense of occupiable space (I1.1, I1.6, and I1.9).
-
- 1.13.35 Require the extensive use of landscape on the site (I1.1).
- 1.13.36 Require the development of a landscape setback along the street frontage, incorporating trees and shrubs, in proximity to the natural grade elevation (unless infeasible due to necessary site grading) and of sufficient depth to convey a "residential neighborhood" character avoiding "wall-like canyons" of buildings (I1.1).
- 1.13.37 Restrict paving surfaces used in the street and side yard setbacks to that necessary to accommodate the driveway (I1.1).
- 1.13.38 Encourage that parking be enclosed and located behind or beneath buildings facing the primary street unless infeasible due to site constraints (I1.1).
- 1.13.39 Require the provision of on-site open space amenities (I1.1 and I1.2).
- 1.13.40 Require that multi-family residential projects incorporate adequate setbacks with adjacent residential, commercial, and industrial uses (I1.1).

- 1.13.41 Require that multi-family residential projects of 12 units and greater be subject to Planning Commission review (I1.1).

HILLSIDE MANAGEMENT OVERLAY DISTRICT

Objective

It shall be the objective of the City of San Bernardino to:

- 1.14 Provide for low-density residential development in the City's hillside areas and assure that this development occurs in a manner which protects the hillside's natural and topographic character and identity, environmental sensitivities, aesthetic qualities, and the public health, safety, and general welfare. This protection is obtained by insuring that development does not create soil erosion, silting of lower slopes, slide damage, flooding problems, and severe cutting or scarring. It is the intent to encourage a sensitive form of development while still allowing for residential uses which complement the natural and visual character of the City and its hillsides.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses, Density, and Height

- 1.14.10 Permit the development of residential units based on the determination of the yield by the following categories of slope in the "Hillside Management Overlay District":

<u>Slope (%)</u>	<u>Units Per Acre</u>
0-15	2.0
15-25	1.0
25-30	0.5
30+	0.1

The Hillside Management Overlay District areas are depicted on the Land Use Plan. These areas are intended to be the approximate location of the hillside areas along the foothills in the northern area of the City (I1.1 and I1.2).

- 1.14.11 Permit the exclusion of parcel areas of 15 percent natural slope or less along the external border of the Overlay District at the base of the hillsides, as determined by the preparation of a slope map by a licensed civil

engineer (in accordance with Policy 1.14.30), from the density and development provisions of this section. Those areas excluded shall revert to the underlying zone district density and development standard provisions (I1.1 and I1.2).

- 1.14.12 Reduce the total yield of development if other hillside management standards (grading, habitat preservation, slope stabilization, drainage, etc.) cannot be attained (I1.1 and I1.2).
- 1.14.13 Permit the transfer of allowable units to lesser slopes according to the following limits:
- a. units may increase the allowable density of the slope category by a maximum of 50 percent;
 - b. land area from which density is transferred shall be restricted from future development (I1.1 and I1.2).
- 1.14.14 Require that any non-residential use located in the Hillside Management Overlay District be subject to a Conditional Use Permit (I1.1).

Design and Development Guidelines

- 1.14.30 Require the preparation of a slope map for "MH" areas by a licensed civil engineer in accordance with standards of measurement determined by the City (I1.1 and I1.2).
- 1.14.31 Permit the development of single-family detached and attached units on cut and fill pads or stepped footings in areas of 0 to 25 percent slope; residences on stepped footings with minimum grading as necessary for driveways, unit siting, drainage, slope stability and fire protection in areas of 25 to 40 percent slope; and no development above 40 percent wherein the allowable units may be transferred to lesser slopes in accordance with Policy 1.14.13 (I1.1 and I1.2).
- 1.14.32 Require that subdivisions be subject to a Conditional Use Permit and require environmental review in accordance with the California Environmental Quality Act, for which the following shall be defined:
- a. existing site conditions, including slope, environmental resources, geologic conditions, drainage, utilities/easements, roadways, vegetation, and other pertinent data;
 - b. permitted uses and lot parcelization;
 - c. street location and sizes;

- d. utility location and sizes (water, sewer, telephone, cable television, electrical, and natural gas);
 - e. drainage plan;
 - f. grading plan;
 - g. habitat preservation plan;
 - h. slope maintenance plan;
 - i. fire protection plan;
 - j. open space maintenance plan;
 - k. development standards; and
 - l. architectural guidelines (I1.1, I1.2, I1.4, I1.6, and I1.7).
- 1.14.33 Encourage the clustering of units to maintain the topographic formations, minimize grading, preserve open spaces and habitat, and protect properties from hazards (I1.1, I1.2, I1.4, I1.6, and I1.7).
- 1.14.34 Require a geologic study for all sites determining the slope stability and locations of faults, adherence to the standards of the "Seismic Risk Management" overlay, and prohibition of development on known landslides (I1.1, I1.4, and I1.7).
- 1.14.35 Locate building pads and develop the proposed site and its roadways with minimized grading and reduce magnitudes of cut and fill slopes by utilizing contoured grading (I1.1, I1.2, I1.4, and I1.6).
- 1.14.36 Require adherence to the requirements of the "Environmental Resources" Policies 10.2.1 through 10.4.3 including:
- a. survey of the site to determine the presence of significant plant and wildlife communities;
 - b. incorporation of habitat management techniques; and
 - c. preservation of riparian habitats (I1.1, I1.2, I1.4, and I1.6).
- 1.14.37 Require the inclusion of drainage and flood control improvements; designed to be as natural appearing as feasible for engineering and safety (I1.1, I1.2, I1.4, and I1.6).

- 1.14.38 Require the use of fire retardant vegetation and irrigated setbacks for development, in accordance with the requirements of the Fire Department (I1.1, I1.2, I1.4, and I1.6).
- 1.14.39 Require the use of fire retardant building materials, in accordance with the requirements of the Fire Department (I1.1, I1.2, I1.4, and I1.6).
- 1.14.40 Require that buildings be designed to "fit" with their hillside setting, including:
- a. avoidance of architectural design styles which dominate their setting or call attention to themselves;
 - b. use of architectural forms and shapes which complement the setting (low rise structures, horizontal versus vertical building bulk, shed roofs, large overhangs, arcades, etc.);
 - c. use of materials which complement the setting; and
 - d. siting of buildings in areas where they do not visually dominate, within the context of their fire protection setbacks (I1.1, I1.4, I1.6., and I1.11).
- 1.14.41 Require adherence to the standards of the "Foothill Communities Protective Greenbelt Program" (I1.1, I1.2, I1.3, and I1.16).

COMMERCIAL

a. Commercial and Region-Serving Retail Uses

Objective

It shall be the objective of the City of San Bernardino to:

- 1.15 Maintain and enhance Central City and Inland Center Malls and adjacent properties as the principal region-serving retail centers of the City of San Bernardino, focusing a majority of the additional demand of 2.2 million square feet in these areas.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.15.10 Permit and encourage the intensification of the Central City and Inland Center Malls and adjacent properties designated as Commercial Regional Retail (CR-1) for region-serving commercial, entertainment, restaurant, supporting retail, professional offices and similar uses (I1.1, I1.4, I1.5, I1.11, and I1.12).

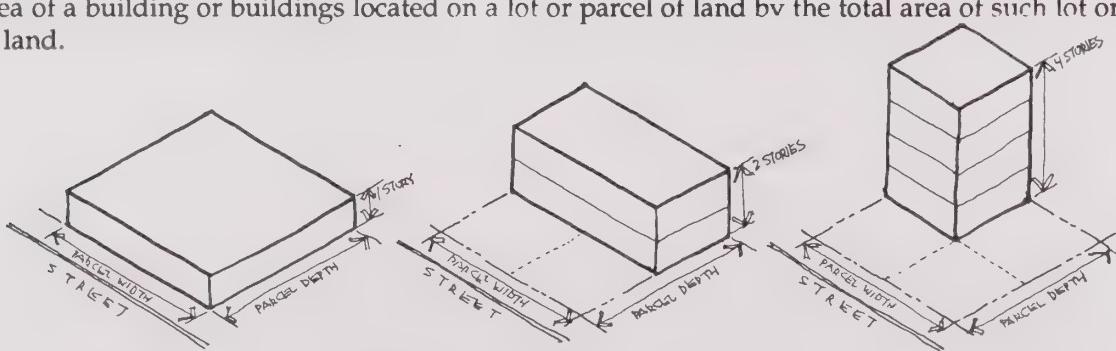
Density/Intensity, and Height

- 1.15.20 Permit a maximum floor area ratio* of 1.5 and height of four stories (52 feet) (I1.1).

Design and Development Guidelines

- 1.15.30 Require that new development in the region-serving malls be designed to visually and physically "open onto" peripheral parking areas, rather than oriented exclusively to interior pedestrian areas; which may incorporate exterior store fronts, restaurants, major entries, and other similar design elements (I1.1, I1.6, and I1.9).
- 1.15.31 Require that new development be designed to convey the physical and visual "sense" of multiple store fronts, rather than large "warehouse" or "box-like" cubic volumes (I1.1, I1.6, and I1.9).
- 1.15.32 Require that all buildings be visually integrated by the use of unifying architectural design elements, signage, lighting, and pedestrian areas (I1.1, I1.6, and I1.9).

* Floor Area Ratio (FAR) is the numerical value obtained by dividing the above-ground gross floor area of a building or buildings located on a lot or parcel of land by the total area of such lot or parcel of land.

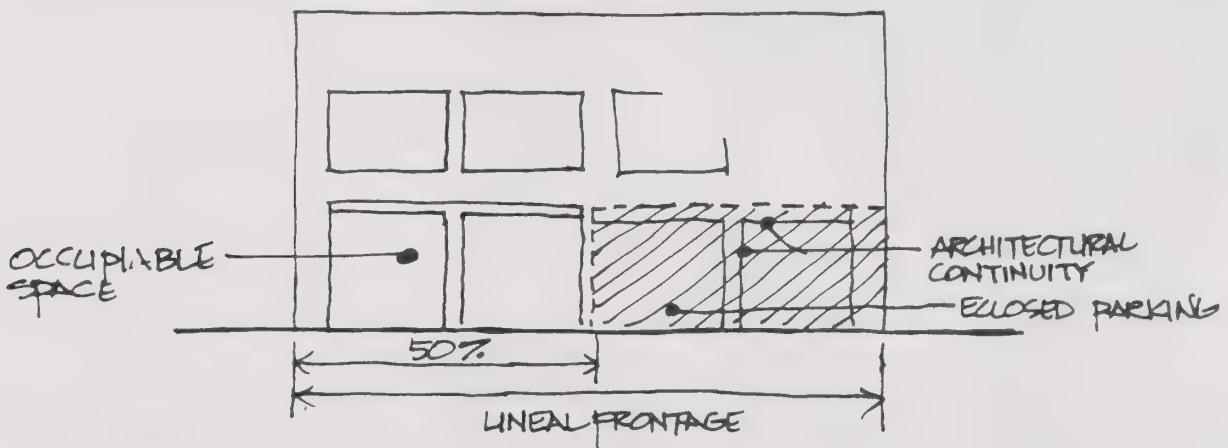


FLOOR AREA RATIO: 1.0 (EXAMPLE)

1.15.33 Locate new development to create visual and physical connections to peripheral sidewalks, sites, and buildings (I1.1 and I1.6).

1.15.34 Encourage that commercial buildings be designed to enhance pedestrian activity and convey a "human scale" at their street elevation including:

- a. the ground floor elevation of a building facing the sidewalk must be visually and physically "penetrable", incorporate architectural elements to provide visual interest and relief from flat surfaces (e.g., textured materials, offset planes, differentiated piers and columns, recessed entries and windows, and awnings), and compatibly landscaped (refer to Figure 6);
- b. a minimum of 50 percent of the elevation of the first occupiable floor of the street frontage of a structure must be located within close proximity at any point of the sidewalk elevation at the abutting property line; and



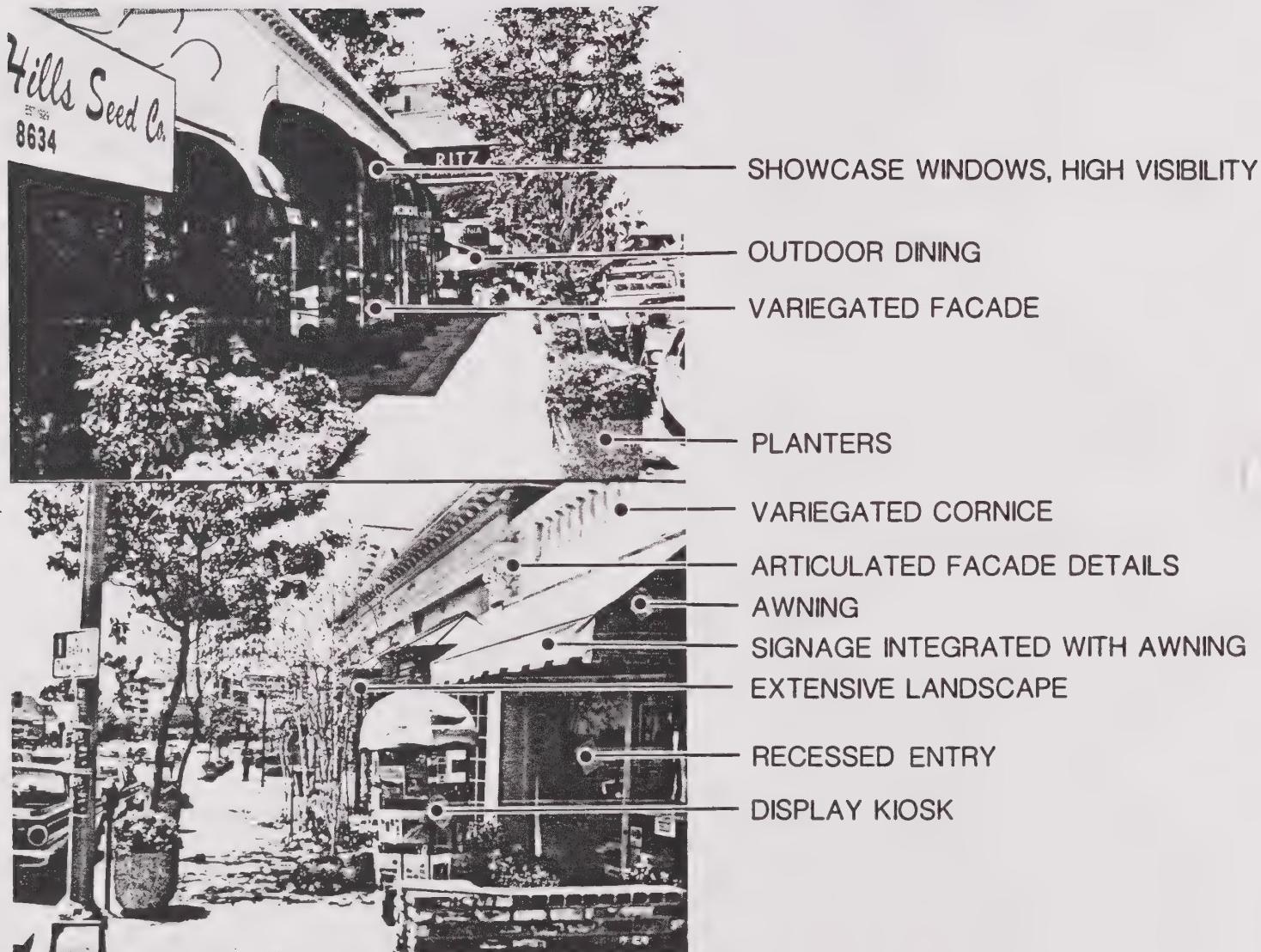
- c. awnings (constructed of durable, fade-resistant, and easily maintainable materials), overhangs, arcades, trellises, and other design elements which provide protection to pedestrians should be considered for use (I1.1 and I1.6).

1.15.35 Encourage that height and bulk impacts of buildings be minimized on pedestrian areas by setting back elevations above two stories (I1.1, I1.6, and I1.9).

1.15.36 Work with the owners of Inland Center to encourage their installation of landscape, berms, decorative walls, well designed signage, and other aesthetic elements to improve the visual and physical quality of the site's periphery (I1.9).

TYPICAL CHARACTERISTICS OF
PEDESTRIAN-ORIENTED USES

FIGURE 6



1.15.37 Develop and implement programs of public streetscape improvements which uniquely identify the regional commercial center and provide linkages among individual building sites (in accordance with Urban Design for Public Spaces Policies 5.3.2, 5.4.2, 5.4.3, 5.4.5, 5.4.7, 5.4.10, 5.4.14, and 5.6.4); including public signage, landscape, street furniture, lighting, and other amenities (I1.17).

b. Region-Serving Commercial Downtown

Objective

It shall be the objective of the City of San Bernardino to:

1.16 Continue and enhance the downtown area as the functional and symbolic center of the City of San Bernardino; providing a diversity of regional serving uses, allowing the highest intensity of use, and establishing well-defined linkages to the City's major commercial and industrial districts and residential neighborhoods.

Policy

It shall be the policy of the City of San Bernardino to:

Permitted Uses

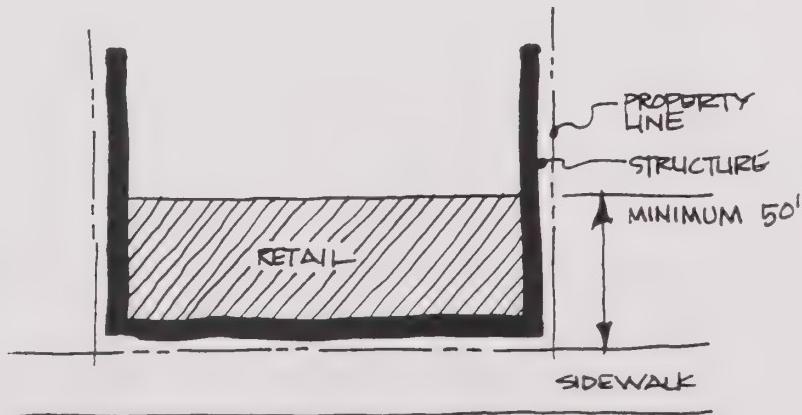
1.16.10 Permit a diversity of region-serving uses including local, county, and state governmental/Administrative, professional offices, cultural/historical and entertainment, convention facilities, hotels/motels, financial establishments, restaurants, supporting retail and services, educational institutions, public open spaces, and similar uses in downtown areas designated as Commercial Regional-Downtown (CR-2) (I1.1 and I1.12).

1.16.11 Provide for and encourage uses which complement and intensify the Convention Center, including expanded convention facilities, corporate teleconferencing centers, hotels, restaurants, theaters, and similar uses (I1.1, I1.11, and I1.12).

1.16.12 Accommodate residential units above the first floor of commercial structures on parcels of 20,000 square feet and greater; provided that:

- a. the residential and commercial spaces are fully separated;
- b. the impacts of noise, odor, and other characteristics of commercial activity can be adequately mitigated; and

- c. a healthy, safe, and well-designed environment can be achieved for the residential units (I1.1, I1.3, and I1.6).
- 1.16.13 Allow for the development of sites exclusively for residential uses provided that:
- a. a minimum contiguous area of one acre is committed to residential use;
 - b. walls, landscape, horizontal and vertical setbacks, and other elements are used to buffer the use from adjacent commercial uses;
 - c. noise, traffic, and lighting impacts of adjacent commercial uses are mitigated;
 - d. passive recreation open space is provided on-site;
 - e. the project is adequately secured; and
 - f. its location will not impact the integrity and continuity of other downtown uses (financial, offices, etc.) (I1.1, I1.4, I1.6, and I1.7).
- 1.16.14 Permit and encourage the development of senior citizen and senior congregate care housing in locations adjacent to supporting services (food, health, recreation, etc.) and public transit provided that they are compatible with and will not adversely impact the integrity and continuity of other downtown uses (I1.1, I1.4, I1.6, and I1.7).
- 1.16.15 Allow for the development of outdoor dining (I1.1).
- 1.16.16 Require that a percentage of the ground floor of all commercial and office structures incorporate "pedestrian-active" retail uses (restaurants, florists, gift shops, bookstores, clothing, shoe repair, etc.) (I1.1).



1.16.17 Establish a "high-activity" sub-area (generally between "D", "E", 2nd, and 5th Streets), where it is the intent to achieve a high level of evening activity, and limit the uses which can be accommodated in the ground elevation of structures to those open in the evening (e.g., restaurants, theaters, and specialty stores (I1.1 and I1.4).

Intensity/Density and Height

1.16.20 Permit a maximum floor area ratio of 3.0 and no defined limit on height; encouraging variation of building heights to create a visually distinctive skyline, reduced bulk, and increased ground floor open space (I1.1).

1.16.21 Permit a maximum floor area ratio of 4.0 and no defined height limit for the incorporation of residential units above the commercial and/or office, provided that a minimum FAR of 1.0 is developed for residential (I1.1).

1.16.22 Permit a maximum density of 54 units per gross acre and no defined limit on height for sites developed exclusively for residential (I1.1).

1.16.23 Permit a maximum density of 150 units per gross acre and no defined height limit for sites developed exclusively for senior citizens or senior congregate care housing in accordance with the requirements of Policy 1.12.11 (I1.1).

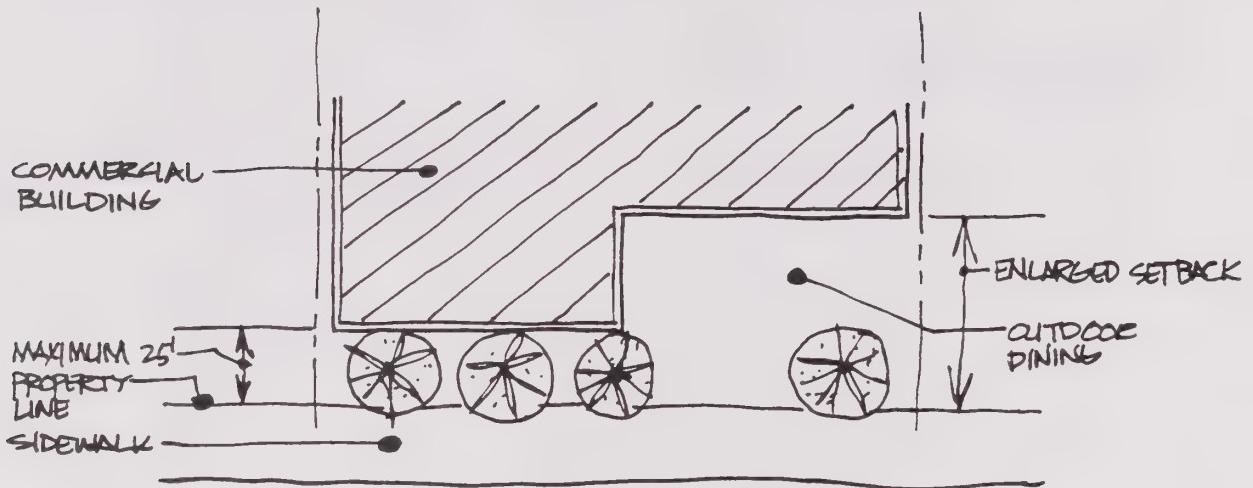
Design and Development Guidelines

1.16.30 Require that buildings be designed, sited, and massed to convey an "urban-like" character; locating structures in proximity to sidewalks, using architectural design styles and materials which visually convey a sense of "mass" and "permanency" (such as granite and marble, defined piers and columns, etc.), incorporating multiple stories, and similar techniques (I1.1, I1.6, and I1.9).

1.16.31 Encourage that buildings be located within twenty-five feet of the sidewalk, except for setbacks to allow outdoor dining, pedestrian-oriented plazas, courtyards and landscaped areas provided that:

- a. the setback is not separated from the abutting sidewalks by walls, continuous planters, or other barriers;
- b. the setback is at or approximate to the elevation of the abutting sidewalks, except where a distinctive and usable open space can be created which transitions "smoothly" from the abutting sidewalk;

- c. the setback is landscaped and incorporates pedestrian-oriented amenities; and
- d. no automobiles or trucks may be parked in this area (I1.1 and I1.16).



- 1.16.32 Require that commercial and office buildings be designed to enhance pedestrian activity and convey a "human scale" at their street elevation, in accordance with Policy 1.15.34 (I1.1).
- 1.16.33 Require that all code-required parking be located to the rear, below, or above the ground floor of the street-facing commercial/office structure, unless infeasible due to site configuration or access limitations (I1.1).
- 1.16.34 Develop and implement a program of public streetscape improvements which uniquely identify the downtown and provide linkages among individual building sites (in accordance with Urban Design for Public Spaces Policies 5.3.2, 5.4.2, 5.4.3, 5.4.5, 5.4.7-5.4.10, 5.4.14, and 5.6.4); including public signage, landscape, street furniture, lighting, and other amenities (I1.17).

c. Region-Serving Commercial: Tri-City/Commercenter and Club Area

Objective

- 1.17 Continue and expand the Tri-City/Commercenter and Club areas as region-serving mixed use centers; capitalizing on their location along the Interstate 10 corridor, and establishing a well-defined linkage to the City's major commercial and industrial districts and residential neighborhoods.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.17.10 Permit a diversity of region-serving uses including corporate and professional offices, retail commercial, entertainment (theaters, nightclubs, etc.), financial establishments, restaurants (excluding drive-thrus in the Tri-City/Commercenter area only), hotels/motels, warehouse/promotional retail, supporting retail and services, and similar uses in areas designated as "Commercial Regional-Tri-City/Commercenter and Club area (CR-3) (I1.1).
- 1.17.11 Permit research and development, high technology, and other business park uses, adjacent to and integrated with existing similar uses (I1.1).
- 1.17.12 Allow for the development of outdoor dining (I1.1).

Density/Intensity and Height

- 1.17.20 Permit a maximum floor area ratio of 3.0 for office and overnight accommodations, 1.5 for research and development and similar uses, and 0.7 for commercial uses and a maximum of four stories (52 feet) for all uses. Structures higher than four stories shall require a Conditional Use Permit (I1.1).

Design and Development Guidelines

- 1.17.30 Require that development be designed to convey the physical and visual appearance of an integrated urban center; utilizing consistent and complementary architectural design styles and building materials, building massing and bulk, and siting of structures (I1.1 and I1.6).
- 1.17.31 Require that buildings be designed to convey a high quality "corporate park" character in accordance with Policy 1.31.30 (I1.1 and I1.6).
- 1.17.32 Require that a comprehensive plan be established which provides for the interrelationship of individual building sites, and visual and physical connections to the peripheral sidewalks and abutting parcels, by:
 - a. locating the structure in proximity to the sidewalk/street;
 - b. incorporating a trellis, arcade, or other architectural element between site structures and streets;

- c. providing interconnecting pedestrian walkways, greenbelts, and vehicular paths between sites; and/or
 - d. providing outdoor dining or other usable open space between the structure and the street (I1.1, I1.4, I1.6, and I1.9).
- 1.17.33 Require the dedication and development of pedestrian and greenbelt linkages to and along the Santa Ana River for sites for which linkages can be established (I1.1, I1.2, I1.4, and I1.5).
- 1.17.34 Require that commercial and office buildings be designed to enhance pedestrian activity at their street elevations, in accordance with Policy 1.15.34 (I1.1 and I1.6).
- 1.17.36 Continue and enhance the program of streetscape improvements which uniquely identify the Tri-City/Commercenter and Club areas and provide linkages among individual building sites (in accordance with Urban Design for Public Spaces Policies 5.3.2 and 5.6.1); including public signage, landscape, street furniture, lighting, and other amenities (I1.17).
- 1.17.37 Require the consolidation of multi-tenant signage into well designed and distinctive signs (I1.1, I1.6, and I1.9).
- 1.17.38 Formulate a specific or development plan for the Tri-City/Commercenter area, incorporating the above elements, subject to public and Planning Commission review and approval of the Mayor and Common Council (I1.4).

d. Region-Serving Community Commercial: Auto Plaza

Objective

It shall be the objective of the City of San Bernardino to:

- 1.18 Provide for the continuing development of the San Bernardino Auto Plaza as the principal center of new car dealerships, serving local residents and adjacent communities.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.18.10 Allow for the development of new and used automobile and truck sales and related retail and service uses in the Auto Plaza area, designated as "Region-serving Commercial Auto Plaza" (CR-4) (I1.1).

Density/Intensity and Height

- 1.18.20 Permit a maximum floor area ratio of 0.7 and height of two (2) stories (30 feet) (I1.1).

Development and Design Guidelines

- 1.18.30 Require that new development be designed to complement existing uses; incorporating aesthetic auto and truck sales showrooms, extensive landscape, and attractive signage (I1.1, I1.6, and I1.9).
- 1.18.31 Require that signage be integrated into the overall site and building design (I1.1, I1.6, and I1.9).

e. Community-Serving Commercial Uses

Objective

It shall be the objective of the City of San Bernardino to:

- 1.19 Provide for the continued use, enhancement, and new development of retail, personal service, entertainment, office and related commercial uses along major transportation corridors and intersections to serve the needs of the residents; reinforcing existing commercial corridors and centers and establishing new locations as new residential growth occurs.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.19.10 Permit a diversity of community-serving retail and service uses (grocery stores, apparel and accessories, furniture and home furnishings, garden supplies, restaurants bookstores, cleaning establishments, shoe repair, beauty salons/hair styling, and similar), entertainment uses, and

professional and financial offices in areas designed as "Commercial General" (CG-1) (I1.1).

- 1.19.11 Permit the development of new and used car dealerships and auto-related retail and service uses (excluding auto body and paint) with a Conditional Use Permit to ensure compatibility with adjacent uses (I1.1 and I1.6).

Density/Intensity and Height

- 1.19.20 Permit a maximum floor area ratio of 0.7 and height of two stories (30 feet) except on parcels immediately abutting a freeway where the height may be increased by Conditional Use Permit (I1.1).
- 1.19.21 Allow for modifications of the height to preserve significant viewsheds from adjacent properties and open space (I1.1).

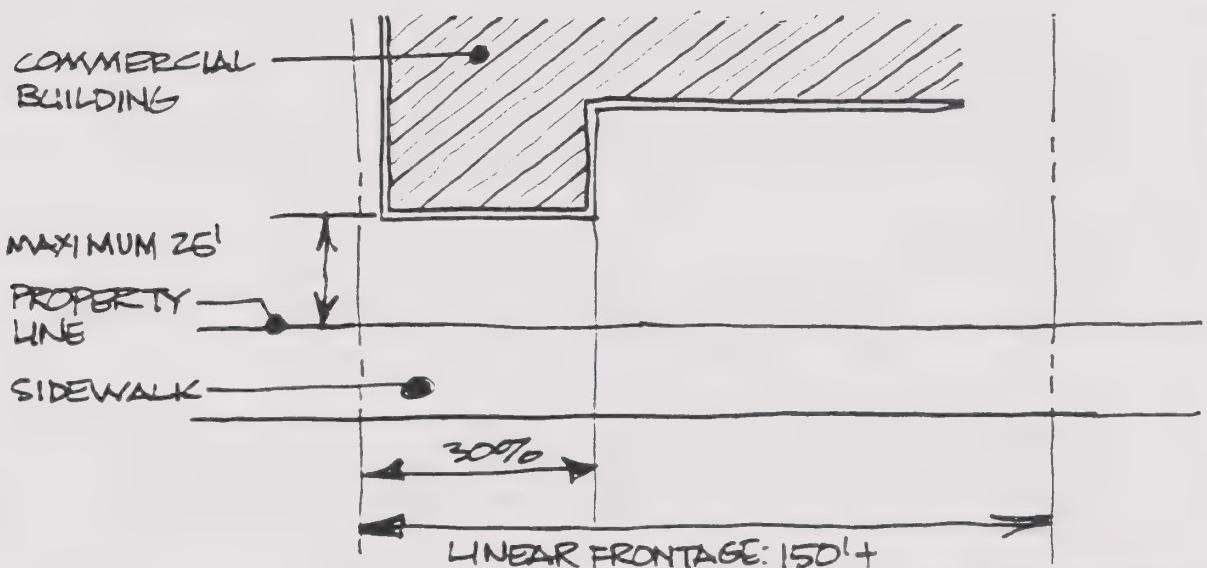
Design and Development Guidelines

- 1.19.30 Require that new commercial developments be designed to convey a low-rise, pedestrian-scaled, community-oriented environment including:
- a. avoidance of large undifferentiated, flat facade, "box" or "warehouse" like structures;
 - b. incorporation of architectural elements which differentiate the facade (articulated columns, beams, and spandrels, offset planes, recessed or projecting windows, etc.);
 - c. siting of buildings around common pedestrian walkways, plazas, courtyards, and open spaces;
 - d. incorporation of pedestrian sidewalks, arcades, or trellises linking the site to peripheral sidewalks and uses;
 - e. inclusion of extensive site landscape (including shrubs and trees);
 - f. provision of art and other visual amenities;
 - g. incorporation of non-reflective glass and doors along the majority of the ground elevation of the facade to provide visual and physical penetration;
 - h. location of percentage of the ground elevation of the building abutting peripheral sidewalks and pedestrian spaces within two vertical feet of these; and

- i. possible inclusion of awnings, overhangs, arcades, and other architectural elements to provide protection (sun, rain, and wind) to pedestrians (I1.1, I1.6, and I1.9).

1.19.31 Require that commercial buildings be designed to enhance pedestrian activity at their street elevation in accordance with Policy 1.15.34 (I1.1, I1.6, and I1.9).

1.19.32 Encourage that the structures on a site must be located within 25 feet of the sidewalk along 30 percent of the property frontage for parcels 150 feet wide and greater (I1.1).



1.19.33 Require the incorporation of a landscape buffer (incorporating ground cover, flowering shrubs, and trees) along the street frontage, unless it is the objective to create a continuous pedestrian-oriented corridor along the sidewalk (I1.1 and I1.6).

1.19.34 Require that adequate vehicular and service flows are provided between individually developed parcels (I1.6).

1.19.35 Require that all commercial development provides buffers with adjacent residential land uses; including, as appropriate, decorative walls, landscape setbacks, restricted vehicular access, enclosure of parking structures to prevent sound transmission, and control of lighting and ambient illumination (I1.1 and I1.6).

f. Community Commercial: Highland "Core"

Objective

It shall be the objective of the City of San Bernardino to:

- 1.20 Facilitate the continuing development of Highland Avenue between Waterman Avenue and "E" Street as a focal point of community-serving commercial uses; providing opportunities for infill and intensification, increased parking, improvement of its visual quality, enhanced compatibility with adjacent residential, and preservation of its overall scale and character.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.20.10 Permit a diversity of community-serving commercial uses in accordance with Policy 1.19.10 (I1.1).

Density/Intensity and Height

- 1.20.20 Permit a maximum floor area ratio of 1.0 and height of two stories (30 feet) (I1.1).

Design and Development Guidelines

- 1.20.30 Require that commercial buildings be designed to enhance pedestrian activity at their street elevation in accordance with Policy 1.15.34 (I1.1, I1.6, and I1.9).

- 1.20.31 Encourage that buildings be located within fifteen feet of the sidewalk, except for setbacks to allow outdoor dining, pedestrian-oriented plazas, landscaped areas, and courtyards, in accordance with Policy 1.16.31 (I1.1 and I1.6).

- 1.20.32 Require that all code-required parking be located to the rear, above, or below the ground floor of commercial buildings unless infeasible due to site configuration or access limitations (I1.1).

- 1.20.33 Require that the rear elevations of buildings facing public alleys and parking lots be architecturally treated in the same design style and character as the street elevation, and incorporate an entry and site landscape (I1.1, I1.6, and I1.9).

- 1.20.34 Develop and implement a program of public streetscape improvements which uniquely identify the Highland Avenue corridor and provide linkages among individual building sites (in accordance with Urban Design for Public Spaces Policies 5.3.2, 5.4.2, 5.4.3, 5.4.7-5.4.10, and 5.4.14); including public signage, landscape, street furniture, lighting, and other amenities (I1.6).

g. Community Commercial: "E" Street Corridor

Objective

It shall be the objective of the City of San Bernardino to:

- 1.21 Promote the upgrade of the "E" Street corridor, between downtown and Base Line Street.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.21.10 Permit the development of community-serving commercial uses in accordance with Policies 1.19.10 and 1.19.11 (I1.1).
- 1.21.11 Allow for the continuation of existing automobile related uses, requiring a Certificate of Occupancy on change of their ownership or use (I1.1).
- 1.21.12 Provide financial incentives for the renovation and upgrade of existing buildings and sites; which may include low interest loans or grants, use of assessment districts, tax increment financing, or other technique (I1.11 and I1.14).

Density/Intensity and Height

- 1.21.20 Permit a maximum floor area ratio of 0.7 and height of two stories (I1.1).

Design and Development Guidelines

- 1.21.30 Require that commercial uses be developed in accordance with Policies 1.19.30 through 1.19.35 (I1.1, I1.6, and I1.9).
- 1.21.31 Require that auto-related and other commercial uses be designed and sited to ensure compatibility with adjacent residential uses; incorporating as appropriate, decorative walks, landscaped setbacks, enclosure of park-

ing structures to prevent sound transmission, and control of lighting and ambient illumination (I1.1 and I1.6).

- 1.21.32 Require that vehicular access be limited to the "E" Street frontage unless infeasible due to site configuration or other limitations (I1.1 and I1.6).
- 1.21.33 Require that existing uses upgrade their buildings and sites on change of ownership or use; including, as necessary, facade renovation (repainting, replacement of deteriorated surface materials, etc.), signage and lighting improvements, increased site landscape, and similar improvements (I1.1 and I1.6).

h. Community Commercial: Mixed Residential

Objective

It shall be the objective of the City of San Bernardino to:

- 1.22 Enhance the economic activity of the Mount Vernon Avenue and Base Line Street, and other appropriate commercial corridors; infilling and intensifying existing development, establishing new key activity centers and nodes, allowing for the development of medium and medium high density as alternative uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.22.10 Permit community-serving commercial uses, in accordance with Policy 1.19.10, in areas designated as "Community Commercial-Mixed Residential" (CG-2) (I1.1).
- 1.22.11 Establish as a high priority, the accommodation of commercial uses which stimulate a high level of economic activity and the area's revitalization and provide jobs for the community (I1.1).
- 1.22.12 Permit community social service uses at these locations (I1.1).
- 1.22.13 Permit low-rise moderate density residential in locations between commercial centers along Mount Vernon Avenue, 5th Street west of Mount Vernon Avenue, and other designated locations west of Interstate 215 and medium-high density residential in locations between commercial centers along Base Line Street and other designated locations east of Interstate 215, in areas designated as CG-2, provided that

- a. a minimum contiguous area of one acre is committed to residential use;
- b. walls, landscape, horizontal and vertical setbacks, and other elements are used to buffer the use from adjacent commercial uses;
- c. noise, traffic, and lighting impacts of adjacent commercial uses, are mitigated;
- d. passive recreation open space is provided on-site;
- e. the project is adequately secured;
- f. its location will not impact the integrity and continuity of other commercial uses; and
- g. a development plan is approved by the Mayor and Common Council (I1.1, I1.4, I1.6, and I1.7).

- 1.22.14 Permit senior citizen and senior congregate care housing in locations between the commercial centers, provided that they are adequately buffered from these uses (sound walls, landscape, security, controlled access, etc.) and in accordance with the provisions of Policy 1.12.11 (I1.1 and I1.6).
- 1.22.15 Pursue aggressive programs to stimulate the economic revitalization of the Mount Vernon Avenue and Base Line Street areas, which shall include marketing of development opportunities, attractions management, Redevelopment authorities, and other appropriate actions (I1.11, I1.12, I1.14).
- 1.22.16 Promote the development of specific plans for the Mount Vernon Corridor, including all parcels flanking Mount Vernon Avenue designated as CG-2 between Base Line Street and Highland Avenue, which allow for the collaborative input of residents and business owners in the formulation of a comprehensive and phased plan which meets the business, residential, and cultural needs of the adjacent community (I1.1, I1.4).

Density/Intensity and Height

- 1.22.20 Permit a maximum floor area ratio of 0.7 and height of two stories (30 feet) for commercial uses (I1.1).
- 1.22.21 Permit a residential density of 4.6 to 14 units per net acre and height of two stories (30 feet) for residential uses along Mount Vernon Avenue and

Base Line Street, and other designated locations west of I-215 and 14.1 to 24 units per net acre and height of two stories (30 feet) along Base Line Avenue and other designated locations east of I-215 (I1.1).

- 1.22.22 Permit a bonus density of 50 percent for the development of senior citizen and senior congregate care housing (I.1).

Design and Development Guidelines

- 1.22.30 Require that commercial development be designed to convey a community-oriented environment, in accordance with Policy 1.19.30 (I1.1, I1.6, and I1.9).
- 1.22.31 Require that commercial buildings be designed to enhance pedestrian activity at their street elevation in accordance with Policy 1.15.34 (I1.1, I1.6, and I1.9).
- 1.22.32 Encourage that the structures on a site be located within 25 feet of the sidewalk along 30 percent of the property frontage for parcels 150 feet wide and greater (I1.1).
- 1.22.33 Require that residential development:
- a. exhibit a distinctive architectural character (employing differentiated facades, a variety of cubic volumes and masses, offset planes, and other design elements);
 - b. provide extensive open space and landscape;
 - c. be set back and buffered from Mount Vernon Avenue and Base Line Street by decorative walls and landscape;
 - d. be buffered from adjacent commercial uses and parking lots by walls and landscape;
 - e. limit site access to abutting residential street frontages;
 - f. provide adequate site security; and
 - g. adhere to design and development Policies 1.13.32 through 1.13.40 (I1.1, I1.6, and I1.9).

i. Community Commercial: University Village

Objective

It shall be the objective of the City of San Bernardino to:

- 1.23 Develop properties adjacent to California State University at San Bernardino along North Park Boulevard, Kendall Drive, and State University Parkway for commercial and personal service uses to meet the needs of students, faculty, and visitors.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.23.10 Permit commercial, personal service, entertainment, eating establishments, food stores and other uses which serve the needs of students, faculty, and visitors (e.g., bookstores, art stores, grocery stores, restaurants, theaters, cleaning establishments, shoe repair, hair styling/cutting, banks and savings and loans, and similar uses) and university-related professional offices and research and development facilities in areas designated as "General Commercial-University" (CG-3) (I1.1).
- 1.23.11 Allow for the nighttime use of university-related commercial uses, provided that they do not adversely impact adjacent residential uses (I1.1, I1.6, I1.7, and I1.8).

Density/Intensity and Height

- 1.23.20 Permit a maximum floor area ratio of 0.7 and height of two stories (30 feet) for commercial, office, and research and development uses (I1.1).

Design and Development Guidelines

- 1.23.30 Require that commercial, personal service, entertainment, dining, office, and research and development uses be designed to convey a "village-like" environment in accordance with Policy 1.19.30 (I1.1, I1.6, and I1.9).
- 1.23.31 Require that commercial and office buildings be designed to enhance pedestrian activity at their street elevation in accordance with Policy 1.15.34 (I1.1, I1.6, and I1.9).

- 1.23.32 Encourage that a minimum of 30 percent of the property frontage be developed for structures (within 25 feet) for parcels 150 feet wide and greater (I1.1).
- 1.23.33 Require that structures sited along Kendall Drive northwest of State University Parkway be no higher than the elevation of the adjacent slope (I1.1).

j. Community Commercial: Specialty/Theme Centers

Objective

It shall be the objective of the City of San Bernardino to:

- 1.24 Achieve the upgrading and enhancement of Mount Vernon Avenue, between 4th and 8th Streets, by establishment of an ethnic-themed specialty commercial center, including retail, restaurants, entertainment, gift shops, and similar uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.24.10 Permit a diversity of ethnic-themed and specialty uses, including restaurants, food sales, clothing, gift shops, entertainment, professional services, and similar uses in areas along Mount Vernon Avenue designated as "Commercial General-Specialty" (CG-4) (I1.1).
- 1.24.11 Permit the development of open-air or semi-enclosed public markets (mercados) (I1.1 and I1.6).
- 1.24.12 Encourage and allow for the development of outdoor dining (I1.1).
- 1.24.13 Permit the development of cultural, social, educational, and other community-serving facilities and organizations (I1.1).
- 1.24.14 Encourage that a minimum of 50 percent of the permitted uses are open for public use during evening hours (I1.1).
- 1.24.15 Permit the development of additional parking by allowing increased commercial property depths, at specified locations, and construction of municipal lots or structures (I1.1).

Density/Intensity and Height

- 1.24.20 Permit a maximum floor area ratio of 1.0 and height of three stories (42 feet) (I1.1).

Design and Development Guidelines

- 1.24.30 Require that the adaptive reuse of existing structures and new construction be designed to complement the existing scale and mass of buildings and convey a distinctive pedestrian-oriented “village” character; creating a common vocabulary of architectural style and elements, signage, lighting, and landscape (I1.1, I1.6, and I1.9).
- 1.24.31 Encourage that buildings be located within fifteen feet of the sidewalk, except for setbacks to allow outdoor dining, pedestrian-oriented plazas, landscaped areas, and courtyards, in accordance with Policy 1.16.31 (I1.1 and I1.6).
- 1.24.32 Require that commercial buildings be designed to enhance pedestrian activity at their street elevation, in accordance with Policy 1.15.34 (I1.1, I1.6, and I1.9).
- 1.24.33 Require that all code-required parking be located to the rear, below, or above the ground floor of commercial buildings, unless infeasible due to site configuration or access limitations (I1.1.).
- 1.24.34 Develop and implement a program of public streetscape improvements which uniquely identify the Mount Vernon specialty center and provide linkages among individual building sites (in accordance with Urban Design for Public Spaces Policies 2.3.2, 2.4.2, 2.4.3, 2.4.7-2.4.10, and 2.4.14); including public signage, landscape, street furniture, lighting, and other amenities (I1.6).
- 1.24.35 Formulate and implement a specific plan which designates land uses, development standards, urban design/public open space improvements, architectural guidelines, parking improvements, and security provisions (I1.4).
- 1.24.36 Establish an annual calendar of events for public attraction to the theme, specialty center (fiestas, mercados, 5K and 10K runs, etc.) (I1.11).

Objective

It shall be the objective of the City of San Bernardino to:

- 1.25 Facilitate the reuse of the railroad depot and adjacent properties for retail/specialty commercial and similar uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.25.10 Permit the adaptive reuse of the railroad station building and development of adjacent properties between 2nd Street and Viaduct Boulevard [designated as "Commercial General-Specialty" (CG-4)] for a commuter rail and parking facility and specialty or community-serving commercial center; including restaurants, gift shops, art galleries, boutiques, theaters, entertainment facilities, food markets, and other similar uses (I1.1 and I1.11).
- 1.25.11 Encourage and provide a mechanism for the development of the preceding uses as a unified mixed-use center (I1.1, I1.4, I1.5, I1.11, and I1.12).

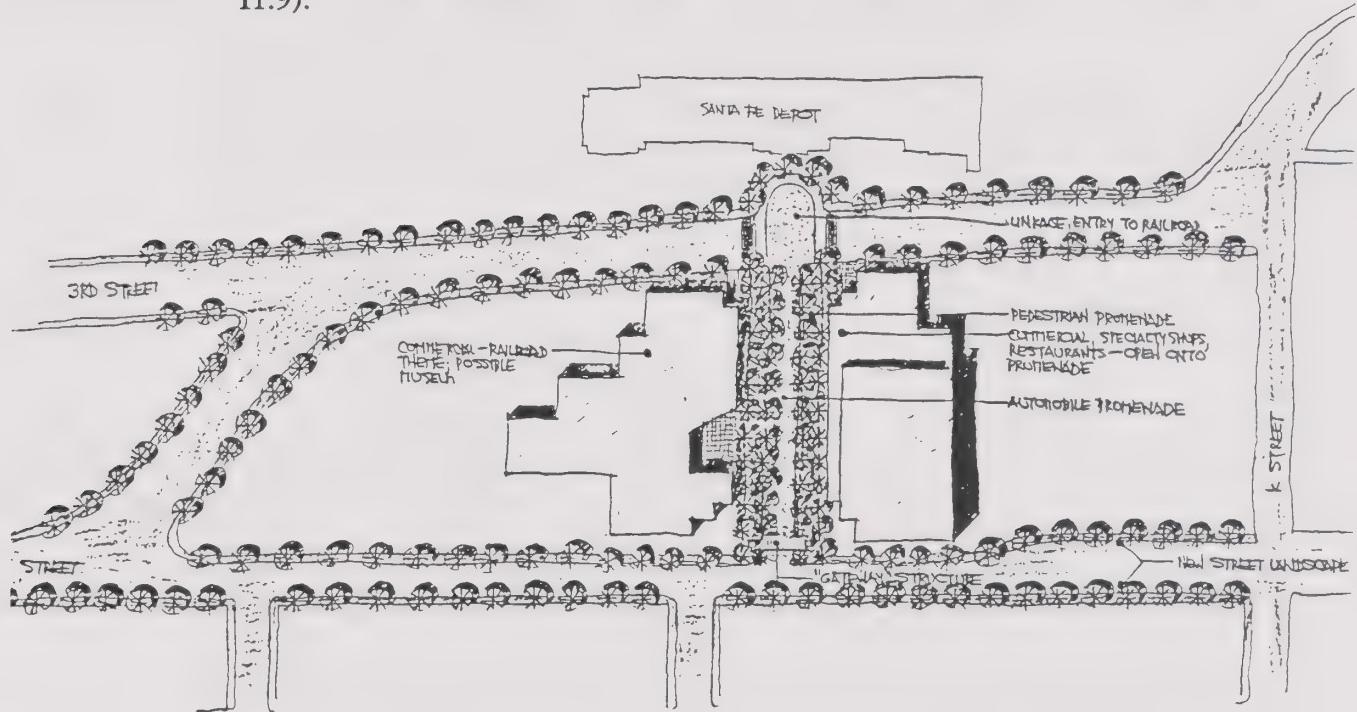
Density/Intensity and Height

- 1.25.20 Permit the development of commercial and entertainment uses at a maximum floor area ratio of 1.0 and height of three stories (42 feet) (I1.1).

Design and Development Guidelines

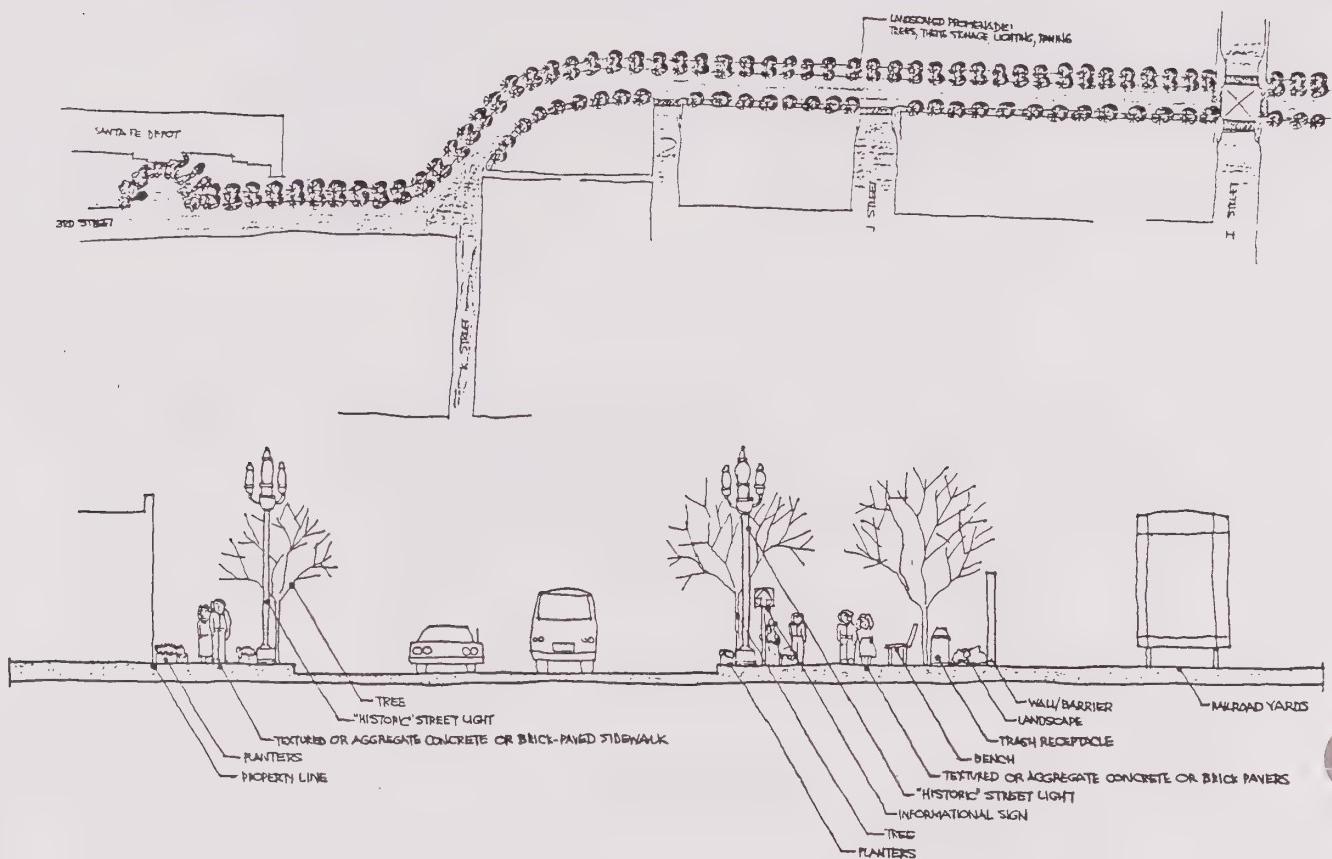
- 1.25.30 Formulate a specific plan for the reuse of the railroad depot and revitalization of adjacent sites; defining development and design requirements for all uses (siting of structures, architectural treatment, landscape, signage, etc.) (I1.4).
- 1.25.31 Require that the area be developed as a unified center including:
- a. siting of structures in proximity to streets and pedestrian areas;
 - b. locating parking to the rear, sides, or below buildings to minimize its view from public and pedestrian spaces
 - c. use of common architectural vocabulary;

- d. interconnecting pedestrian paths and open spaces;
- e. extensive site landscape;
- f. consistent public and informational signage; and
- g. elements defining key "entry" points and activity locations (monuments, signs, archways, landscape, lighting, etc.) (I1.4, I1.6, and I1.9).



- 1.25.32 Promote the development of a limited access street or pedestrian mall perpendicular to the entrance to the railroad station, extending from 2nd Street, along which specialty commercial uses and extensive streetscape improvements would be implemented (as defined in the Uptown Redevelopment Project Urban Design Program) (I1.4, I1.12, and I1.17).
- 1.25.33 Require that the railroad station be renovated in a style and using materials and colors consistent with its original design character (I1.4, I1.6, I1.9, and I1.11).
- 1.25.34 Pursue the designation of the railroad station on the National Register of Historic Places (I1.21).

- 1.25.35 Implement streetscape improvements along 2nd or 3rd Streets as a linkage to downtown; including street trees, landscape, lighting, street furniture; signage, and other amenities (I1.17).



k. Neighborhood-Serving Commercial

Objective

It shall be the objective of the City of San Bernardino to:

- 1.26 Provide for the continued use, expansion, and new development of small scale, low-intensity commercial uses which serve and are in proximity to residential neighborhoods throughout the City.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.26.10 Permit neighborhood-serving commercial uses [grocery stores (smaller than supermarkets), shoe repair, cleaning establishments, drugstores, florists and similar uses] in areas of the City designated as "Commercial Neighborhood:" (CN) (I1.1).
- 1.26.11 Permit the sales of gasoline and oil related products as secondary uses to convenience markets, with a Conditional Use Permit to ensure compatibility with adjacent uses (I1.1. and I1.6).

Density/Intensity and Height

- 1.26.20 Permit a maximum floor area ratio of 0.35 and height of one story (25 feet) (I1.1).

Design and Development Guidelines

- 1.26.30 Require that neighborhood commercial uses be designed to reflect and be compatible with a low-density residential neighborhood character, in accordance with Policy 1.19.30 (I1.1, I1.6, and I1.9).
- 1.26.31 Encourage that a minimum of 30 percent of the property frontage be occupied by structures (within 25 feet of the sidewalk) for parcels of at least 150 feet in width (I1.1).
- 1.26.32 Encourage incorporation of an extensive landscape buffer (incorporating ground cover, flowering shrubs, and trees) along the street frontage, unless it is the objective to create a continuous pedestrian-oriented corridor along the sidewalk (I1.1).
- 1.26.33 Require that adequate vehicular and service flows be provided between individually developed parcels (I1.1 and I1.6).
- 1.26.34 Require that all commercial development provides buffers with adjacent residential land uses; including decorative walls, landscape setbacks, restricted vehicular access, enclosure of parking structures to prevent sound transmission, control of lighting and ambient illumination, and limitation of hours of operation (I1.1 and I1.6).

1. Neighborhood-Serving Commercial: Verdemont

Objective

It shall be the objective of the City of San Bernardino to:

- 1.27 Provide for the development of a low-intensity, low-rise commercial center in the Verdemont area which offers retail and personal service uses for local residents, is integrated and linked to adjacent residences, and designed as a "village-like" complex of small stores reflecting its rural and mountain-valley environment.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.27.10 Permit neighborhood-serving commercial uses, in accordance with Policy 1.26.10 (I1.1).

Density/Intensity and Height

- 1.27.20 Permit a maximum floor area ratio of 0.35 and height of one story (25 feet) (I1.1).

Design and Development Guidelines

- 1.27.30 Require that development be designed to convey a rural "village-like" environment, using building materials and colors which reflect and complement the setting, account for local fire and wind hazards, and are consistent with the requirements of the Foothill Communities Protective Greenbelt Plan and designed in accordance with Policy 1.19.30 (I1.1, I1.6, and I1.9).

- 1.27.31 Require that commercial buildings be designed to enhance pedestrian activity in accordance with Policy 1.15.34 (I1.1, I1.6, and I1.9).

- 1.27.32 Encourage that the structures on a site be located within 25 feet of the sidewalk along 30 percent of the property frontage for parcels 150 feet wide and greater (I1.1).

- 1.27.33 Require that an extensive landscape strip be located along all property street frontages; incorporating ground cover, trees, flowering shrubs, and other visual amenities (I1.1).

m. Commercial Office

Objective

It shall be the objective of the City of San Bernardino to:

- 1.28 Provide for the continued use, expansion, and new development of administrative and professional offices and supporting retail uses in proximity to major transportation corridors and ensure their compatibility with adjacent residential and commercial uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.28.10 Permit a diversity of administrative and professional offices, supporting retail commercial uses, and medical facilities in areas designated as "Commercial Office" (I1.1).
- 1.28.11 Limit supporting retail uses to a percentage of the ground floor of any project (I1.1).
- 1.28.12 Permit the development of senior citizen and senior congregate care housing by Conditional Use Permit (I1.1).

Density/Intensity and Height

- 1.28.20 Permit a maximum floor area ratio of 1.0 and height of four stories (52 feet) except within 75 feet of Residential Suburban (RS) where the height shall be limited two (2) stories (30 feet). This shall not apply to hospitals (I1.1).
- 1.28.21 Permit a maximum density of 54 units per acre for senior citizen and senior congregate care housing in accordance with the conditions of Policy 1.12.11 (I1.1).

Design and Development Guidelines

- 1.28.30 Require that new office buildings be designed to be architecturally distinctive and enhance pedestrian activity at their ground elevation, in accordance with Policy 1.15.34 (I1.1., I1.6, and I1.9).

- 1.28.31 Encourage that a minimum of 30 percent of the property frontage be occupied by structures (within 25 feet of the sidewalk) for parcels of at least 150 feet in width (I1.1).
- 1.28.32 Require an extensive landscape buffer (incorporating ground cover, flowering shrubs, and trees) along the street frontage, unless it is the objective to create a continuous pedestrian-oriented corridor along the sidewalk (I1.1).
- 1.28.33 Require that adequate vehicular and service flows be provided between all individually developed parcels (I1.1 and I1.6).
- 1.28.34 Require that all office development provides buffers with adjacent residential land uses; including decorative walls, landscape setbacks, restricted vehicular access, enclosure of parking structures to prevent sound transmission, and control of lighting and ambient illumination (I1.1 and I1.6).
- 1.28.35 Require that senior citizen and senior congregate care housing be designed in accordance with Policies 1.16.13 (I1.1, I1.6, and I1.9).

Objective

It shall be the objective of the City of San Bernardino to:

- 1.29 Allow for the conversion of existing residential structures in designated areas for administrative professional offices (I1.1).

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.29.10 Permit the conversion of residential structures for low-intensity use administrative and professional offices in areas designated as "Commercial Office-Residential" (CO-2) (I1.1).
- 1.29.11 Allow new construction of administrative and professional offices, provided that it exhibits the visual appearance of a residence consistent with existing adjacent residential structures (I1.1 and I1.9).

Density/Intensity and Height

- 1.29.20 Permit a maximum floor area ratio of 0.35 and height of two (2) stories (30 feet) (I1.1).

Design and Development Guidelines

- 1.29.30 Require that residential conversions for an office use adhere to all building code standards and other City conditions (I1.1 and I1.6).
- 1.29.31 Require that residential conversions for an office use provide adequate on-site parking (I1.1 and I1.6).
- 1.29.32 Require that new construction be in an architectural idiom consistent with the existing residential units and incorporate buffers (walls, landscape, etc.) to adequately mitigate traffic, noise, and other impacts on adjacent residential uses (I1.1, I1.6, and I1.9).

n. Commercial Heavy

Objective

It shall be the objective of the City of San Bernardino to:

- 1.30 Provide for the development of limited commercial and industrial uses characterized by an extensive use of outdoor or indoor space for their sales, service, and/or storage and ensure their compatibility with adjacent uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.30.10 Accommodate new and used automobile and truck sales and repair facilities, lumberyards and related building materials and hardware sales, plant nurseries, light industrial manufacturing and storage facilities and similar uses which require extensive outdoor or indoor space for their sales, service, and/or storage, excluding typical neighborhood commercial uses in areas designated as "Commercial Heavy" (CH) (I1.1).

Density/Intensity and Height

- 1.30.20 Permit a maximum floor area ratio of 0.7 and height of 45 feet (I1.1).

Design and Development Guidelines

- 1.30.30 Require that the street frontages of heavy commercial sites incorporate an extensive setback in which landscape (ground cover, shrubs, and trees) and decorative screening walls are provided (I1.1).
- 1.30.31 Require that buildings and sites be maintained free of debris and at a high level of visual quality; ensuring that sites are periodically monitored and codes are enforced (I1.1 and I1.15).

OFFICE INDUSTRIAL PARK

Objective

It shall be the objective of the City of San Bernardino to:

- 1.31 Establish the Waterman Avenue corridor and other appropriate areas as distinctive office industrial parks and corporate centers serving the San Bernardino community and region.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.31.10 Permit a diversity of corporate office, light manufacturing, research and development, and supporting retail service uses in areas designated as "Office Industrial Park" (OIP) (I1.1).

Density/Intensity and Height

- 1.31.20 Permit a maximum floor area ratio of 1.0 and height of three stories (42 feet) (I1.1).

Design and Development Guidelines

- 1.31.30 Require that the sites be developed as a corporate/business park setting, including:
- a. siting of structures in proximity to streets and pedestrian areas;
 - b. location of parking to minimize its view from public and pedestrian areas;

- c. use of common architectural vocabulary (materials, colors, design character, etc.);
 - d. development of interconnecting pedestrian paths and open spaces;
 - e. provide employee amenities;
 - f. use of consistent and well designed public and informational signage; and
 - g. installation of elements defining key "entry" points and activity locations (I1.1, I1.4, I1.6, and I1.11).
- 1.31.31 Require that all structures and sites be designed to convey visual interest and character and be compatible with their adjacent uses; including:
- a. differentiation of building facades by materials, color, architectural details (columns, recessed or projected windows, articulated beams or spandrels, etc.), and offset planes and volumes;
 - b. architectural treatment of all facades;
 - c. extensive use of landscape along the building street frontage and on-site;
 - d. enclosure of storage areas with decorative screening or walls;
 - e. location of vehicular access to minimize conflicts with adjacent residential uses; and
 - f. mitigation of noise, odor, lighting, and other impacts attributable to the use (I1.1, I1.6, and I1.9).
- 1.31.32 Require that supporting commercial services be located in corporate office industrial park structures (I1.1.).
- 1.31.33 Develop and implement a program of public streetscape improvements which uniquely identify the Waterman Avenue corridor and other office industrial park areas (in accordance with Urban Design for Public Spaces Policies 5.3.2, 5.3.14, 5.4.2, 5.4.10, and 5.4.14); including landscape street medians, aesthetic sidewalks and walls, street trees, well designed public signage, street furniture, lighting, and other amenities (I1.17).
- 1.31.34 Permit and encourage the formulation of a specific plan for the development of all or portions of the office industrial parks; defining permitted uses, development intensity, architectural guidelines, site

planning guidelines, signage standards, infrastructure and street improvements, landscape requirements, and other pertinent development standards (I1.3).

INDUSTRIAL

a. Light Industrial

Objective

It shall be the objective of the City of San Bernardino to:

- 1.32 Retain, enhance, and intensify existing and provide for the new development of light industrial uses along major vehicular, rail, and air transportation routes serving the City of San Bernardino.

Policies

It shall be the policy of the City of San Bernardino to:

1.32.10 Permitted Uses

Permit manufacturing, warehousing, research and development, mini storage, outdoor display and storage, and similar uses characterized by the location of their predominant activities in enclosed buildings in areas designated as "Industrial Light" (IL) (I1.1).

- 1.32.11 Permit supporting retail and personal service commercial uses (restaurants, newsstands, florists, tobacco shops, etc.); provided that these uses constitute no more than 15 percent of total building square footage (I1.1).

- 1.32.12 Permit retail sales of products manufactured on-site (I1.1).

Density/Intensity and Height

- 1.32.20 Permit a maximum floor area ratio of 0.75 for "employee-intensive" uses and 1.0 for warehousing and "hardware-intensive" uses and height of two stories (50 feet) (I1.1).

Design and Development Guidelines

- 1.32.30 Require that buildings be designed to convey visual interest and character, in accordance with Policy 1.31.31 (I1.1, I1.6, and I1.9).

1.32.31 Require that development projects incorporate an extensive landscape setback along principal street frontages, including ground cover, shrubs, trees, and decorative walls (I1.1).

1.32.32 Encourage the development of "master planned" industrial parks in accordance with Policy 1.31.30 (I1.1, I1.4, I1.6, and I1.6).

b. Heavy Industrial

Objective

It shall be the objective of the City of San Bernardino to:

1.33 Provide for the continuation and development of heavy manufacturing industries in locations where they will be compatible with and not adversely impact adjacent land uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

1.33.10 Accommodate a diversity of heavy manufacturing uses which are characterized by their large land utilization and physical facility requirements, and low employee intensity (steel fabrication, aircraft assembly, food processing, etc.), junk yards, and similar uses in areas designated as "Industrial Heavy" (IH) (I1.1).

1.33.11 Prohibit the development of uses which contribute significant toxic wastes and pollution (I1.1 and I1.6).

Density/Intensity and Height

1.33.20 Permit a maximum development floor area ratio of 0.75 and no defined height limit (I1.1).

Design and Development Guidelines

1.33.30 Require that all development be compatible with adjacent land uses; incorporating landscape setbacks, screening walls, and other appropriate elements (I1.1 and I1.6).

1.33.31 Require that properties be maintained free of debris and at an appropriate level of visual quality; ensuring that sites are periodically monitored and codes are enforced (I1.1 and I1.15).

c. Extractive Industrial

Objective

It shall be the objective of the City of San Bernardino to:

- 1.34 Develop uses which mine and process the City's mineral resources in the Cajon Creek, Lytle Creek, and Santa Ana River areas and ensure their compatibility with adjacent uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.34.10 Accommodate sand and gravel and other mineral resource production operations in areas designated as "Industrial Extractive" (IE) (I1.1).
- 1.34.11 Permit the development of interim uses which do not impair the long-term ability to extract and process the mineral resources; including outdoor storage, lumber yards, nurseries, recreation, and similar uses (I1.1 and I1.6).

Design and Development Guidelines

- 1.34.30 Require the submittal and approval of a Mineral Reclamation Plan in accordance with the California Surface Mining and Reclamation Act (I1.1).
- 1.34.31 Ensure that mineral resources production activities are compatible with adjacent uses by reviewing and applying appropriate conditions which:
- a. preclude truck-hauling trips through residential neighborhoods, unless there are no feasible alternatives,
 - b. mitigate noise, odor, and dust impacts,
 - c. provide for visual integration with adjacent uses (e.g., incorporation of landscape buffer or decorative walls),
 - d. provide for the restoration and reuse of the site on completion of the production activities in a manner which does not adversely disrupt the character and integrity of adjacent uses (I1.1 and I1.6).

1.34.32 Require conformance with Mineral Resource Protection Policies 10.8.1 through 10.9.5 (I1.1, and I1.6).

PUBLIC

a. Public Commercial Recreation

Objective

It shall be the objective of the City of San Bernardino to:

1.35 Provide for the continuation of existing and development of new public and private commercial recreation facilities in the City and ensure their compatibility with adjacent uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

1.35.10 Permit the development of public and private golf courses, sports facilities, ballparks, fairgrounds, open spaces, and similar uses in areas designated as "Public/Commercial Recreation" (PCR) (I1.1 and I1.18).

Density/Intensity and Height

1.35.20 Determine the appropriate intensity of commercial recreation development by public review and input (I1.1 and I1.6).

Design and Development Guidelines

1.35.30 Require that commercial recreation uses be compatible with their surrounding land uses, including

- a. limitation on type of use, attendance, and/or hours of operation to control traffic, noise, and lighting impacts;
- b. location of site access points away from residential uses; and
- c. inclusion of landscape setbacks, walls, and other elements to buffer adjacent land uses (I1.1 and I1.18).

1.35.31 Require that commercial recreation facilities be subject to public review and Planning Commission approval (I1.1 and I1.6).

Objective

It shall be the objective of the City of San Bernardino to:

- 1.36 Provide for the continued use and expansion of the National Orange Show to attract local and regional visitors for entertainment, recreation, festival, and similar uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.36.10 Promote the improvement and expansion of the National Orange Show facilities, including the formulation and implementation of short- and long-term master plans which provide for exhibition, festival, commercial recreation, entertainment, and convention facilities and supporting uses (hotels, restaurants, gift stores, etc.) (I1.1 and I1.18).
- 1.36.11 Work with the State, to consider the possible inclusion of permanent specialty commercial, restaurant, hotel, and similar uses on a portion of the site which provide for its continuing daily use and encourage the full-year scheduling of events and activities (fairs, festivals, entertainment, athletics and sports, fiestas, farmers markets, community picnics, conventions, etc.) (I1.18).

Density/Intensity and Height

- 1.36.20 Permit a maximum flow area ratio of 3.0 and no defined limit on height for non-public commercial uses.

Development and Design Guidelines

- 1.36.30 Work with the National Orange Show to improve the compatibility of the site with adjacent uses, including the:
- a. location of pedestrian, automobile, and vehicle access to minimize conflicts with adjacent land uses and improve traffic flows;
 - b. installation of landscape, decorative walls, and other aesthetic elements on the site's periphery to improve its visual character;
 - c. installation of consistent and well designed signage to identify the site and control traffic;

- d. siting of buildings and activities to prevent noise, light, and other adverse impacts on adjacent uses;
- e. location of any permanent year-long uses (restaurants, hotels, specialty shops, etc.) in proximity to "E" Street, to the extent feasible; and
- f. development of pedestrian linkages to "E" Street, Waterman Avenue, and Mill Street (I1.18).

b. Public Uses

Objective

It shall be the objective of the City of San Bernardino to:

- 1.37 Provide for the continuation of existing and development of new parks, schools, government administrative, police, fire, social service, and other public facilities and open spaces in proximity to and compatible with residential uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.37.10 Permit the continuation and enhancement of existing public parks in areas designated as "Public Parks" (PP) and new development in any land use zone (in accordance with Parks and Recreation Policies 9.1.1 through 9.1.13) (I1.1 and I1.18).
- 1.37.11 Permit the continuation of existing and expansion of existing schools in areas designated as "Public Facilities" (PF) and new development in any residential zone (in accordance with Public Service Policies 8.7.1 through 8.7.3) (I1.1 and I1.18).
- 1.37.12 Coordinate with the State University the development of educational, cultural, recreational, student housing, and other related uses at the Cal State campus, designated as "Public Facilities" (PF) (I1.18).
- 1.37.13 Permit the continuation and expansion of existing public facilities (police, fire, social service, cemeteries, governmental administrative, and other) in areas designated as "Public Facilities" (PF) and new development in any land use zone (I1.1 and I1.18).

Density/Intensity and Height

- 1.37.20 Determine the intensity of use for public properties by public input and review (I1.6).

Design and Development Guidelines

- 1.37.30 Coordinate with public agencies to ensure that public buildings are designed to be compatible in scale, mass, character, and architecture with the adjacent buildings in which they are located and in accordance with the standards for design and development stipulated for the location or zone in this Plan (I1.18).
- 1.37.31 Require that public sites be designed to incorporate landscape setbacks, walls, and other appropriate elements to buffer their use, as required, from adjacent uses (traffic, noise, etc.) (I1.18).

c. Public Flood Control

Objective

It shall be the objective of the City of San Bernardino to:

- 1.38 Continue, maintain, and expand public flood control facilities.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.38.10 Permit the continuation, maintenance, and improvement of public flood control facilities in areas designated as "Public Flood Control" (PFC) (I1.1 and I1.2).
- 1.38.11 Permit the development of new public flood control facilities in any zone in which improvements are required to protect public health and safety, siting and developing facilities to maintain environmental habitats and account for environmental hazards (I1.1, I1.2, and I1.18).

ISSUE FOUR: WHAT SHOULD BE THE FUTURE ROLE AND CHARACTER OF NORTON AIR FORCE BASE?

Goal

It shall be the goal of the City of San Bernardino to:

- II Ensure the orderly and economic transition of Norton Air Force Base to private or joint public-private commercial uses which are compatible with and enhance adjacent uses.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.39 Promote the public or joint public-private use of Norton Air Force Base and adjacent properties for aviation-related industrial and/or commercial purposes.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.39.10 Coordinate with the U.S. Air Force the planned phasing out of military facilities and operations at Norton Air Force Base areas designated as "Public Facility" (PF) (I1.18).
- 1.39.11 Formulate a specific plan in collaboration with other appropriate jurisdictions for the reuse of Norton Air Force Base and adjacent properties which may be impacted by its redevelopment, which may provide for aviation-related warehousing, manufacturing, research and development, high technology, residential, and ancillary uses (I1.18).

Density/Intensity and Height

- 1.39.20 Determine appropriate development intensities and heights for industrial, commercial, and/or residential uses, for the reuse of the Air Force Base (I1.10).

Design and Development Guidelines

- 1.39.30 Incorporate in the specific plan development and design standards intended to ensure physical and visual compatibility among land uses and adjacent sites in cooperation with federal agencies, County of San Bernardino, and City of Highland (I1.4, I1.6, I1.7, I1.8, I1.11, and I1.18).
- 1.39.31 Continue, revise, and update, as necessary, programs to ensure land use compatibility, similar to the Air Installation Compatible Use Zone program, should airport and aviation activities be continued (I1.20).

ISSUE FIVE: WHAT SHOULD BE THE FUTURE ROLE AND CHARACTER OF THE RAILROAD YARDS?

Goal

It shall be the goal of the City of San Bernardino to:

- 1J Enhance the Santa Fe Railroad yards for transportation and related industrial uses serving the City and region.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.40 Provide for the continuation of railroad and other transportation uses at the Santa Fe Railroad yard site and improve their compatibility with surrounding land uses.

Policies

It shall be the policy of the City of San Bernardino to:

Permitted Uses

- 1.40.10 Permit the continuation and expansion of railroad, other transportation, and ancillary uses at the Santa Fe Railroad yard site (I1.1).
- 1.40.11 Permit the development of a multi-modal transportation center, including railroad, rail transit, vehicular transit, bus, automobile and other uses in areas designated as "Industrial Heavy" (IH) (I1.1).
- 1.40.12 Permit the development of transportation-related industrial, manufacturing, service, and warehouse uses (I1.1).

Density/Intensity and Height

- 1.40.20 Permit the development of industrial uses at a maximum floor area ratio of 0.75 (I1.1).

Design and Development Guidelines

- 1.40.30 Work with the owners of the railroad property to implement measures to improve its compatibility with adjacent uses; including possible noise walls, berms, and limitation on hours and types of operations (I1.11).
- 1.40.31 Work with the owners of the railroad property to implement measures to improve its visual appearance including landscaped setbacks and decorative walls along its periphery (I1.11).

ISSUE SIX: HOW SHOULD BUILDINGS IN THE CITY BE MAINTAINED?

Goal

It shall be the goal of the City of San Bernardino to:

- 1K Maintain the physical quality of the City's buildings.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.41 Ensure that existing and new buildings in the City are adequately maintained.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.41.1 Periodically monitor the conditions of buildings in the City and enforce pertinent building and zoning codes (I1.3, I1.21, and I1.22).
- 1.41.2 Provide programs which educate residential and commercial property owners and tenants regarding methods for the maintenance and upkeep of their property (I1.22).
- 1.41.3 Continue to require the issuance of a Certificate of Occupancy and compliance with building, zoning, and other pertinent codes and regulations on change of ownership and tenancy (I1.13 and I1.16).

Objective

It shall be the objective of the City of San Bernardino to:

- 1.42 Encourage the physical upgrading and revitalization of deteriorated and dilapidated buildings and sites.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.42.1 Provide economic assistance and administer educational programs for the improvement of physically deteriorated and blighted structures in the Redevelopment Project Areas and all other areas for which they may be required (I1.11, I1.12, and I1.14).
- 1.42.2 Encourage the assembly of small parcels into larger development sites to facilitate the revitalization of deteriorated or blighted areas which such action is needed and the objective is to achieve the effective economic and physical improvement of the area (I1.11, I1.12, and I1.13).
- 1.42.3 Provide for the use of a City agency, nonprofit corporation, or other entity to attract new development and facilitate the revitalization of deteriorated areas (I1.11).

ISSUE SEVEN: WHAT SHOULD BE THE PHYSICAL AND VISUAL QUALITY OF DEVELOPMENT?

Goal

It shall be the goal of the City of San Bernardino to:

- 1L Achieve development which contributes to a high quality physical and visual environment.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.43 Ensure that buildings in the City are soundly constructed.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.43.1 Require that all structures be constructed in accordance with the requirements of the City's building and other pertinent codes and regulations; including new, adaptively reused, and renovated buildings (I1.1 and I1.3).
- 1.43.2 Update the City's building and development codes and regulations to ensure that they incorporate professionally accepted state-of-the-art standards (I1.3).

Objective

It shall be the objective of the City of San Bernardino to:

- 1.44 Ensure that development in the City's commercial and industrial districts and corridors and residential neighborhoods is physically and visually reflective of their existing or intended characteristics.

Policy

It shall be the policy of the City of San Bernardino to:

- 1.44.1 Require that new development, adaptive reuse, and renovation provide for the physical design of buildings, sites, pedestrian areas, and spaces in accordance with pertinent standards and guidelines for each land use district as defined by the 0.00.30 subsection of Policies 1.8.00 through 1.40.00 (I1.1, I1.2, I1.4, I1.6, I1.9, I1.12, and I1.17).

Objective

It shall be the objective of the City of San Bernardino to:

- 1.45 Ensure that private signage is well integrated into architectural and site design and minimized with land use districts to reduce visual clutter and blight.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.45.1 Prohibit the development of new billboards in the City, except as on-site replacement of existing units (I1.1).

- 1.45.2 Pursue the acquisition and removal of billboards along major viewsheds and other areas which are visually impacted, as funding is available (I1.23).
- 1.45.3 Establish design standards for billboards which improve their visual character and compatibility with adjacent uses and require that all existing billboards be upgraded to these standards within five years (I1.1).
- 1.45.4 Minimize the number, size, and placement of signs in private development (I1.1).
- 1.45.5 Require that private signage be limited to the purposes of building, business, and/or tenant and address identification (I1.1).
- 1.45.6 Prohibit the development of pole signs at the key entries to the City (as identified in the Urban Design for Public Spaces Policy 5.1.2) and in key activity districts, including the downtown, Tri-City/Commercenter, Mount Vernon Theme Center, Highland Avenue "Core", Santa Fe Railroad Depot Specialty Center, Waterman Avenue Office Industrial Park, California State University area, Verdemont commercial "village", and other pertinent areas (I1.1).
- 1.45.7 Require that wall, window, directory, projecting and all other building signs be integrated with its architectural design style and character (I1.1).
- 1.45.8 Prohibit the use of oversize, flashing, animated, or garishly colored signs which dominate the building, architecture, and/or district in which they are located (I1.1).
- 1.45.9 Allow for consideration of signs of visually distinctive design and merit which may differ from prescribed limits of size, materials, and other characteristics, provided that they are well integrated with the building and site, do not adversely impact adjacent uses, and are not intended solely to increase sign size (I1.1 and I1.9).
- 1.45.10 Require the abatement of non-conforming signs over an acceptable amortization period (I1.1).

ISSUE EIGHT: HOW SHOULD DEVELOPMENT BE LINKED WITH THE PROVISION OF SUPPORTING INFRASTRUCTURE?

Goal

It shall be the goal of the City of San Bernardino to:

- 1M Ensure that adequate public infrastructure is provided with land use development.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.46 Ensure that land use development is coordinated with the ability to provide adequate streets, sewers, water, electrical, natural gas, telecommunication, solid waste disposal, storm drainage, and other public infrastructure.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.46.1 Implement public infrastructure improvements necessary to serve land uses accommodated by the Land Use Plan (as defined by Circulation and Utility Policies) (I1.18).
- 1.46.2 Require that development be contingent upon the ability of public infrastructure to provide sufficient capacity to accommodate its demands (I1.1, I1.2, I1.6, and I1.21).
- 1.46.3 Coordinate the timing of the implementation of public infrastructure with development, in accordance with Circulation and Utility Policies (I1.1, I1.2, and I1.21).

ISSUE NINE: HOW SHOULD DEVELOPMENT BE RELATED TO THE CITY'S ENVIRONMENTAL RESOURCES AND HAZARDS?

Goal

It shall be the goal of the City of San Bernardino to:

- 1N Maintain the integrity and health of the City's environmental resources and protect residents, businesses, and visitors from the adverse impacts of environmental hazards.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.47 Protect significant environmental resources from disruption due to development.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.47.1 Require adherence of development to the "Environmental Resources/Hazards Composite Overlay, Biological Resources Management Area" which defines standards and regulations for the protection of significant resource habitats (riparian, woodlands, rare and endangered species, aquatic, and other) (as depicted in Figure 41 defined in the Environmental Resource Policies 10.2.1-10.3.4) (I1.1, I1.2, I1.6, and I1.7).

Objective

It shall be the objective of the City of San Bernardino to:

- 1.48 Protect the life and property of residents, businesses, and visitors to the City of San Bernardino from the hazards of flood, fire, seismic risk, and liquefaction.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.48.1 Require adherence of development to the "Seismic Hazards" overlay (Figure 54) which defines standards and regulations for the protection of life and property from the fault zones which cross the City (as defined in the Seismic Policies 12.1.1-12.4.4) (I1.1, I1.2, I1.6, and I1.7).

- 1.48.2 Require adherence of development to the "Seismic Hazards" overlay (Figure 54) which defines standards and regulations for the protection of life and property in potential liquefaction zones (as defined in Seismic Policies 12.3.1-12.3.4) (I1.1, I1.2, I1.6 and I1.7).

- 1.48.3 Require adherence of development to the "100-Year Floodplain" overlay (Figure 62) which defines standards and regulations for the protection of life and property in the 100-year floodplains (as defined in the Flood Hazard Policy 16.1.3) (I1.1, I1.2, I1.6, and I1.7).

- 1.48.4 Require adherence of development to the "Environmental Resources/Hazards Composite Overlay" (Figure 42) which defines standards and regulations for the protection of life and property in high wind and fire risk areas of the City (as defined in Wind and Fire Hazard Policies 15.1.1-15.1.6 and 15.2.1, 15.2.2, and 15.2.7) (I1.1, I1.2, I1.6, and I1.7).

ISSUE TEN: WHAT SHOULD BE THE RELATIONSHIP OF LAND USE DEVELOPMENT TO PUBLIC SAFETY?

Goal

It shall be the goal of the City of San Bernardino to:

- 1O Provide a safe environment for residents, business persons, and visitors to the City of San Bernardino.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.49 Provide for a pattern, scale, and design of land uses which promote individual safety.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.49.1 Require that land uses provide lighting, screening, and other elements pertinent to the type of use which provide safety to users of the site and ensure no adverse impacts on adjacent properties (I1.1 and I1.6).
- 1.49.2 Encourage the use of "defensible space" concepts in building and site design to promote individual safety of site users (I1.1 and I1.6).
- 1.49.3 Require that entertainment, drinking establishments, and other uses characterized by high activity levels provide adequate safety measures to prevent "spill-over" impacts on adjacent properties (I1.1, I1.6, I1.7 and I1.8).
- 1.49.4 Require adherence to Public Service: Police and Fire Policies (I1.1 and I1.16).

ISSUE ELEVEN: WHAT LANDS SHOULD BE ANNEXED TO THE CITY AND WHAT SHOULD BE THEIR PRIORITY?

Goal

It shall be the goal of the City of San Bernardino to:

- 1P Achieve a unified and contiguous City area.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.50 Ensure that all lands which are and will be a part of the contiguous San Bernardino urban and suburban area and receive its services are incorporated in the City's limits.

Policies

It shall be the policy of the City of San Bernardino to:

- 1.50.1 Pursue annexations of County "islands" and other lands which are a part of San Bernardino's contiguous urban and suburban area, receive services from the City, and are located in the designated Sphere of Influence (I1.19).
- 1.50.2 Establish as the first priority for annexation those unincorporated lands which are wholly or almost wholly surrounded by the City (I1.19).
- 1.50.3 Work with residents of unincorporated lands in the Sphere of Influence to ensure their support and participation in annexation proceedings (I1.19).
- 1.50.4 Work with adjacent cities and the County to establish uniform and continuous City boundaries, avoiding irregular intrusions and projections (I1.19).

ISSUE TWELVE: HOW SHOULD THE PUBLIC CONTINUE TO PARTICIPATE IN LAND USE DECISIONS?

Goal

It shall be the goal of the City of San Bernardino to:

- 1Q Involve the residents of San Bernardino in sharing the character and quality of the City's land use environment.

Objective

It shall be the objective of the City of San Bernardino to:

- 1.51 Ensure that residents of San Bernardino have the opportunity to provide input to the determination of future land use development which may significantly affect the character and quality of life (I1.6 and I1.7).

Policies

It shall be the policy of the City of San Bernardino to:

- 1.51.1 Encourage that the public be involved in the review and comment on all land use projects which may significantly impact the community; including presentations by developers to adjacent residents and businesses, written and oral input to Environmental Impact Reports, conduct of public hearings, and other appropriate techniques (I1.6 and I1.12).
- 1.51.2 Review the General Plan annually and update, as necessary (but not less than every five years), to reflect new conditions, city priorities, goals and objectives and technical advances (I1.10).

IMPLEMENTATION PROGRAMS

The following indicates the programs which shall be carried out by the City of San Bernardino to implement the goals, objectives, policies, and standards of the Land Use Element. Each program is preceded by a capital "I" and number which is referenced by the pertinent policy which it implements in the preceding section (these are noted in parentheses at the close of each policy).

I1.1 Revise the Zoning Ordinance

The principal method by which a city implements General Plan land use policy is the zoning ordinance. Policies and standards which prescribe the types of use permitted, their density/intensity, and development characteristics (design, property setbacks, etc.) are codified as precise requirements in the ordinance. The authority to zone is inherent in the police power delegated to cities by the California Constitution. The zoning ordinance consists of two basic elements: (a) a map which delineates the boundaries of districts in which like uses developed at like standards are to be permitted and (b) text which explains the purpose of the zoning district, lists the permitted uses and those permitted under special conditions, and defines the standards for development (e.g., minimum lot size, density, height, setbacks, lot coverage, parking requirements, and so on).

On adoption of the revised General Plan, it is recommended that the San Bernardino Municipal Code (Title 19) be modified to be consistent with the Plan's policies and standards. This may be accomplished by consolidating zoning and subdivision requirements (I1.2) into a single, comprehensive Development Code.

- a. The zoning map will require revision to reflect the land use policy map.
- b. Existing zoning classifications will require revisions to reflect the General Plan's land use categories.
- c. Development standards for each land use district will require revision to reflect the policies and standards contained in the Plan. Generally, these include:
 - (1) Establishment of maximum floor area ratios (FARs) to control development intensity of commercial and industrial sites.
 - (2) Review and reconciliation of permitted residential densities and lot areas.

- (3) Establishment of maximum and minimum limits for the size of residential units.
 - (4) Review and revision of building height limitations.
 - (5) Review and reconciliation of property and vertical setbacks for land use compatibility.
 - (6) Review and establishment of requirements for buffers between differing uses.
 - (7) Revision of landscape standards (including rooftop requirements for commercial uses).
 - (8) Establishment of standards to enhance the pedestrian character of streets in selected commercial districts; including the types of use, architectural design, and siting of structures at the ground floor elevation.
 - (9) Establishment of architectural design standards for all uses (e.g., bulk, mass, and facade articulation and planes).
 - (10) Establishment of design standards for (a) the introduction of new residential structures in existing neighborhoods which preserves their scale and character and (b) introduction of second residential units in existing single-family areas designated as "Residential Urban" (RU-1 and RU-2) which preserves the single-family character of the area.
 - (11) Upgrade of design and development standards for multi-family residential uses.
 - (12) Establishment of standards to achieve a higher level of "defensible space."
- d. Standards and requirements for bonus densities for senior citizen and congregate care housing shall be established.
 - e. Standards and requirements for adult businesses, alcohol sales, video arcades, gasoline sales, auto and truck dealerships, and other "high impacting" uses should be reviewed and revised.
 - f. New overlay zones and standards for environmental resource management shall be established including "Environmental Habitat," "Seismic Risk," "Liquefaction Potential," "Flood Hazard," and "Wind Hazard."

- g. Standards and requirements for development in the Hillside Management Overlay District of hillside areas shall be established; considering, at a minimum, topography, grading, drainage, vegetation, habitat preservation and maintenance, ridgeline preservation, fire protection, seismic risks and landslides, architectural design, and access.
- h. Definition and establishment of standards for "retail sales" and "night-time activity" sub-areas of downtown, Mount Vernon, and other selected areas.
- i. Establish specific standards and requirements for use, site design, and architectural design for selected geographic areas in which unique functional activities or physical character are intended. These normally will be in addition to the underlying standards established for each land use zone. Areas for which the specific standards may be considered include:
 - (1) Downtown (which may include the Main Street Program)
 - (2) "Regional Opportunities Corridor"
 - (3) Tri-City/Commercenter/Club Area
 - (4) Mount Vernon "Theme" Center
 - (5) Santa Fe Railroad Depot and Adjacent Commercial Properties
 - (6) University "Village" Area
 - (7) Verdemont Commercial "Village" Area
 - (8) Waterman Avenue Business Park Corridor
 - (9) Norton Air Force Base Environs
 - (10) Highland Avenue, between Waterman Avenue and "E" Street
- j. Signage standards shall be upgraded including limitations on signage types, number, size, design, placement, materials, colors, and other characteristics. A schedule shall be established for the amortization of non-conforming signs. Design standards for billboards shall be incorporated.
- k. Requirements shall be reviewed and upgraded, as necessary, for development to link to and provide public infrastructure; including sidewalks, "parkway" and street frontage landscape, street improvements, electricity, natural gas, telecommunication, storm drainage, sewer, and water.
- l. Standards and conditions shall be established for the refinement and reconciliation of commercial and residential boundaries.
- m. Standards and requirements for Planned Residential Developments (PRD) shall be reviewed and revised to reflect the site development policies and standards contained in the Plan.

- n. Procedures, standards, and requirements shall be established for the consideration of development projects which are judged to significantly benefit the City and differ from the provisions of the zoning ordinance for density/intensity, and/or design.

I1.2

Subdivision Regulations

Subdivision regulation is an exercise of the police power of a city authorized by the State to control the manner in which land is divided. Like the zoning ordinance, it must be consistent with the General Plan. It will be necessary to review the City's subdivision ordinance and amend it as necessary to reflect the land use goals, objectives, policies and standards. This may be combined with the zoning regulations into a unified development code. Specific concerns include the range of lot sizes permitted for each residential classification, site development standards, responsibility for linkage to and provision of public infrastructure (streets, utilities, storm drainage, etc.), dedication of land or in-lieu fees for park lands and schools, and relationship of subdivision design to environmental management overlays including "Hillside Management," "Environmental Habitat and Wildlife Corridors," "Seismic Risk," "Liquefaction Potential," "Flood Hazard," and "Fire Hazard."

I1.3

Building Code

The City shall continue the Building Code as the set of rules and regulations by which new construction, adaptive reuse, and renovation shall occur. The Code shall be updated, as necessary, to reflect pertinent changes in the Uniform Building Code and State legislation. At least once each three years, the City shall review the Code and update it as necessary to reflect conditions which are unique to the City (e.g., seismic, liquefaction, fire, and wind hazards).

I1.4

Specific Plans

State law (Government Code Section 63450) authorizes cities to adopt specific plans for implementing their general plans in designated areas. They are intended to provide more finite specification of the types of uses to be permitted, development standards (setbacks, heights, landscape, architecture, etc.), and circulation and infrastructure improvements. They are most often used to ensure that multiple property owners and developers adhere to a common development plan; not unlike a comprehensive single-owner "master plan" (e.g., Irvine Ranch). They, usually, are not intended for single-owner and developer sites.

Specific Plans are initiated by the City or developers of large scale projects. Costs for City-initiated Specific Plans are, usually, reimbursed by pro-rata assignment of fees to developers applying for development permits in the Specific Plan area.

To implement the land use policy, it is suggested that specific plans be considered for the following applications:

- a. Provide a mechanism for large scale multiple-parcel development projects within the densities and heights prescribed by land use policy, whose objective is to achieve a special purpose or character. Such may include plans for the downtown, Tri-City/Commercenter/Club area, "Regional Opportunities Corridor," Mount Vernon "Theme" Center, reuse of the Santa Fe Railroad Depot and adjacent properties, reuse of Norton Air Force Base, Waterman Avenue Office/Industrial Park Corridor, University "Village" Area, and Verdemont Area.
- b. Provide a mechanism for the consideration of variation from the base-line permitted uses, densities/intensities, and development standards for "significant" regional or community uses.
- c. Provide a mechanism for the consolidation of adjoining commercially- and residentially-designated parcels into a single site wherein commercial and residential buildings are located in a unified development project, without regard for the designated commercial-residential boundary (similar to a "planned development") in locations specified by land use policy.
- d. Provide a mechanism for determining the appropriate type, character, density/intensity, and standards of development for the reuse of sites currently used for public or private institutions.

I1.5

Development Agreements

Development agreements are authorized by State law to enable a city to enter into a binding contract with a developer which assures the city as to the type, character, and quality of development and additional "benefits" which may be contributed and assures the developer that the necessary development permits will be issued regardless of changes in regulations.

This ensures that a developer of a multi-phased project who has based his or her project financing on conditions negotiated with the City at a particular time would not be adversely affected by subsequent, more restrictive regulations. This, in turn, enables the city to extract additional contributions and benefits from the developer. This is a technique which may be used in lieu of a specific plan and other large development projects not requiring an increase in buildable area or height.

I1.6

Development Review

New development and enlargement of existing structures, except single-family residences, in the City of San Bernardino are subject to review according to their adherence with City standards and regulations and General Plan policy and issuance of a Development Permit. Certain projects, consistent with zoning, are subject to approval of the Director of Planning; while others must receive conditional use permits or variances and are subject to review of the Planning Commission and formal public hearings. In preparing the implementing zoning ordinance for this Plan, the City should reevaluate these regulations for their adequacy in providing effective public review and comment on proposed development projects. As necessary, the thresholds should be revised to reflect the potential impacts of a project based on type of use, size, location, trips generated, infrastructure demands, or other appropriate criteria.

I1.7

Environmental Review

The California Environmental Quality Act (CEQA) requires that the environmental effects of a project must be taken into account when considering zone changes, development permits, the review of all projects submitted by an applicant or initiated by the City and determination of their potential for significantly affecting the City's and region's environmental resources (by an "Initial Study"). If it is found that significant impacts may occur, an Environmental Impact Report (EIR) must be prepared. The EIR presents an overview of the environmental setting of the project, assesses how that environment will change on introduction of the project, prescribes changes to the project which must be made to mitigate any impacts found to be significant, and identifies and evaluates the impacts of any alternatives. The "environment" of San Bernardino to be evaluated consists of the composite of existing physical elements; including natural environmental components (air quality, geology/seismicity, groundwater, etc.) and man-related components (circulation and traffic, infrastructure, public services, etc.). Economic impacts are not considered part of the "environment," in accordance with CEQA. This does not preclude the preparation of separate "Fiscal" or "Economic" impact analyses. However, they are not a part of an EIR.

On completion of an EIR, it is made available for public review and comment. At least one public hearing must be conducted by the Planning Commission on the EIR. Comments received must be responded to and addressed in the Final EIR.

Environmental review occurs in concert with the Development Permit process. No discretionary permit can be approved without, first, satisfactory completion of the environmental review process. This may involve a full EIR, "Focused" EIR if it is found that only a limited number of resources may be impacted, "Supplemental" EIR if the project is a revision of an earlier project or time has passed and conditions have changed, or "Negative Declaration" if the project is determined by the City to have no significant effects.

I1.8 Traffic Impact Review

As a component of the environmental review process, or separately, the City shall require the conduct of an analysis defining the traffic impacts and mitigation measures for new development and adaptive reuse projects. A threshold (i.e., number of trips generated) should be established above which such analyses should be required. The analyses will be subject to public review.

I1.9 Architectural Design Review

The goals, objectives, policies, and standards contained in the Land Use Element call for a high level of architectural and site design performance in the City of San Bernardino. To this end, it is recommended that one or more professionals who are trained in architectural, landscape, and/or urban design be retained on City staff at all times. This person or persons would be responsible for meeting with development applicants and explain to them the design goals, objectives, policies, and standards of this plan and how they are interpreted by the City. Specific visual examples of projects which meet these requirements should be presented. This will enable the City to be pro-active in design, rather than the normally reactive stance of design review commissions. Annually, the City should review the effectiveness of this process in achieving the intended level and quality of design performance. If ineffective, additional design education and review procedures should be considered, which may include the establishment of an Architectural Review Commission.

I1.10 General Plan Monitoring and Update

Revise and update all General Plan Elements at least once each five years. This should include (a) an update of baseline data, analyses, and issues to account for current conditions; (b) evaluation of the policies and programs

contained in this Plan according to their effectiveness in achieving the Plan's goals and objectives; and (c) revision of the policies and programs to increase their effectiveness and account for current issues. Public input shall be actively solicited in the update. In addition, the Plan shall be monitored annually for its effectiveness in mitigating defined issues and achieving its goals and objectives. The Planning Commission shall report these findings to the Mayor and Common Council.

I1.11

Economic Development

Effectuation of land use policies will necessitate a coordinated program of economic development. This may include the funding of a nonprofit corporation created by the City to attract new businesses and develop low and moderate income housing. It should also include "pro-active" steps by representatives of the Mayor and Common Council and City staff (planning, redevelopment, community development, etc.) to (a) maintain and enhance existing key commercial uses, industries, and residential neighborhoods and (b) attract new job and revenue-generated uses. Potential "pro-active" measures which can be pursued by the City include:

- a. encouragement of the owners of Inland Center and Central City Mall to intensify development and improve the visual character of these sites;
- b. participation with the National Orange Show in the intensification, introduction of year-round uses, and visual improvement of the site;
- c. solicitation and accommodation of new region-serving uses;
- d. participation in feasibility studies and planning for the reuse of Norton Air Force Base;
- e. participation with property owners and developers in the establishment of ethnic-themed commercial center on Mount Vernon Avenue;
- f. participation with property owners and developers in the reuse of the Santa Fe Railroad Depot and adjacent properties for specialty commercial uses; and
- g. participation with property owners and tenants in the preservation and upgrade of community-serving commercial uses throughout the City.

These and other economic development strategies are presented in Section 4.0 of this Plan.

I1.12

Redevelopment

California, through the Community Redevelopment Law (Health and Safety Code Sections 33000 et. seq.), authorizes a city to undertake redevelopment projects to revitalize blighted areas. An adopted plan provides additional tools to a city to effectuate productive change. These include the use of tax increment (i.e., amount of additional tax revenue above a "frozen" base generated by increased property valuations resulting from new development in the project area), property acquisition, consolidation of small parcels, joint public-private partnerships, clearance of land and resale to developers, and relocation of tenants. Twenty percent of the tax increment, in most cases, is to be used to increase and improve the community's supply of low and moderate income housing.

Redevelopment Plans may be adopted with respect to areas in which the conditions of physical, economic, and/or social blight predominate. San Bernardino has nine active Redevelopment areas. In the future, additional redevelopment plans should be considered where conditions of physical and economic blight warrant.

I1.13

Lot Consolidation Program

The City, in cooperation with the Redevelopment Agency, shall develop a program for the consolidation of small lots into larger parcels of greater economic viability in the downtown area, adjacent to Seccombe Lake, and Mount Vernon Corridor. This should occur in concert with specific short-term development programs for these areas and developer participation.

I1.14

Rehabilitation/Renovation Incentives

The City shall continue and expand programs of low interest loans and grants for the renovation, rehabilitation, and/or adaptive reuse of existing residential, commercial, and industrial structures. Additionally, the City shall establish educational programs to train property owners and tenants in renovation and rehabilitation construction techniques and provide technical assistance to low income individuals. The latter should include building surveys and improvement specifications by structural and mechanical engineers and architects and construction assistance by contractors. The City should solicit programs of voluntary participation by local architects, engineers, contractors, and construction workers.

I1.15

Code Enforcement

Codes and ordinances of the City of San Bernardino which implement the Land Use Element shall be enforced. Historically, this has been achieved

by City staff responses to specific complaints. If a problem has been found on investigation, a demand for compliance has been issued. It is suggested that additional resources and personnel be allocated to periodic surveys of land use and building conditions and, where problems are found, code compliance be required.

I1.16 Certificate of Occupancy

The City requires that a Certificate of Occupancy (C of O) be issued on change of ownership, business, and tenancy. The C of O process should be used by the City to review building and site conditions and require upgrades and compliance with pertinent codes and requirements.

I1.17 Urban Design Improvements for Public Spaces*

The City shall formulate urban design master plans, define a funding program, and implement public open space improvements for key activity areas and entry points to the city, as defined by land use policy. This will include street trees and landscape, street furniture, lighting, signage, sidewalk and crosswalk paving, and other pedestrian-oriented amenities. Locations for which plans should be prepared and improvements implemented include:

- a. Downtown
- b. Tri City/Commercenter Area
- c. "Regional Opportunities Corridor"
- d. Mount Vernon "Specialty/Theme" Center
- e. Santa Fe Railroad Depot and Environs (for reuse)
- f. Highland Avenue, Waterman Avenue to "D" Street
- g. 2nd or 3rd Street Linkage between Downtown and Railroad Area
- h. Entries to districts (California State University, Verdemont, Waterman Avenue Business Park, etc.)
- i. Entries to City from the freeways and major highways

I1.18 Inter-Agency Coordination

Land use development in the City of San Bernardino impacts and is impacted by the actions of adjacent municipal jurisdictions (City of Highland, City of Redlands, City of Colton, City of Rialto, City of Loma Linda, and County of San Bernardino), utility districts, school districts, service providers, and "superior" government agencies (e.g., U.S. Air Force, California State University, and California Department of Transportation). As a consequence, it is essential that the actions of each jurisdiction which impact one another be closely coordinated. Agreements

* Refer to Urban Design for Public Spaces Element.

and procedures for coordination need to be continued or established where they do not exist. Key concerns which should be addressed by inter-agency coordination include:

- a. Land use compatibility on the City's periphery and interface of streets and traffic; with the Cities of Highland, Redlands, Colton, Loma Linda, and Rialto, County of San Bernardino, and United States Forest Service.
- b. Regional transportation; with the California Department of Transportation and Southern California Association of Governments.
- c. Reuse of Norton Air Force Base; with the United States Air Force, Federal Aviation Administration, County of San Bernardino, City of Highland, and City of Redlands.
- d. Compatibility of land use and traffic with California State University at San Bernardino.
- e. Coordination of development on and adjacent to the National Orange Show; with the State of California.
- f. Provision of schools; with local school districts.
- g. Linkage with and capacity of public infrastructure (sewer, water, storm drainage, flood control, solid waste, electricity, natural gas, and telecommunications) with appropriate service agencies.
- h. Reuse of the County Hospital site and other publicly-owned sites.
- i. Regional air quality; with the South Coast Air Quality Management District.
- j. Regional housing; with the Southern California Association of Governments.
- k. Maintenance of significant environmental habitats; with State Department of Fish and Game.
- l. Mitigation of seismic risks; with State Division of Mines and Geology.
- m. Mitigation of fire hazards; local fire department in coordination with U.S. Forest Service.
- n. Human services; with local social service providers.

I1.19

Annexation

The City shall pursue the annexation of lands in the sphere of influence for which it provides services and are logical, contiguous extensions of the City's pattern of urban and suburban development. City staff should work closely with residents and property owners of these areas to ensure that their needs, issues, and objectives are met by the annexation. Priority should be placed on the annexation of unincorporated lands which are wholly or almost wholly surrounded by the City.

I1.20

Revise the Air Installation Compatible Use Zone

Should Norton Air Force Base be redeveloped for commercial aviation purposes, it will be necessary to establish land use compatibility standards and requirements similar to and replacing the Air Installation Compatible Use Zone plan to account for any modifications in aircraft and ground side operations. This shall include the preparation of new noise contours and compatible land use zoning.

I1.21

Data Base

The City shall compile and maintain a comprehensive inventory of data pertaining to and affecting the use of land. This data should, preferably, be stored in a geographic computer base and recorded by parcel for easy access, retrieval, and manipulation. Information, at a minimum, should include:

- a. Parcel identification
- b. Existing use
- c. Zone designation
- d. General Plan designation
- e. Building area and number of residential units
- f. Building height
- g. Property setbacks
- h. Construction year
- i. Unique characteristics (e.g., historical structure)

I1.22

Public Information

The City of San Bernardino should establish a Public Information Office as a part of the City Administrator's Office whose role would be to disseminate information about the City to residents, business persons, visitors, and the media. This would be accomplished through news releases, publications (e.g., newsletters and brochures), and presentations and speeches. It is recommended that the City prepare and distribute publications regarding important land use policy and programs which may include:

- a. Information regarding development opportunities in the City (properties available, long-term land use objective, etc.).
- b. Information regarding job opportunities and housing availability in the City.
- c. Information regarding zoning ordinance and building code requirements.
- d. Design criteria for new construction and renovation.
- e. Information regarding educational opportunities, cultural facilities and events, recreational facilities and programs, and community events.
- f. Information regarding architectural, historical, and cultural resources (description and walking tours).
- g. Educational materials specifying techniques for property maintenance and renovation of structures.
- h. Information regarding available loans and grants for property renovation and revitalization.

I1.23

Billboard Acquisition

State law permits a city to purchase, in fee, billboards. It is recommended that the City consider establishing a fund to acquire and remove billboards which are incompatible with their environmental setting (e.g., in proximity to residences or major viewsheds), in disrepair, and/or visually unattractive. Revenue for the fund should be derived from the City's General Fund, exactions from developers, and/or tax increment generated by new development in redevelopment project areas.

2.0 HOUSING

INTRODUCTION

The housing of people is among the most fundamental of human needs. As such, housing has traditionally been at the heart of urban planning concerns. At the same time, housing is among the more complex issues in planning because its adequate provision depends upon a number of social and economic factors that are in a constant state of flux. Some of the social factors include population growth, household size, employment availability, and household income. Economic factors include availability of land for housing construction, land costs, amount and type of residential zoning, quality of existing housing stock, and governmental constraints on housing construction (special fees).

A. LEGAL REQUIREMENTS

Perhaps because of its importance and complexity, the Housing Element is subject to special legal requirements. It is the only element among the seven (7) state-mandated General Plan Elements that is monitored by the State of California Department of Housing and Community Development (HCD). Most of the current regulations governing the preparation of the local housing elements came into effect in 1980. In 1984 special legislation addressing the issue of homelessness was adopted.

State law requires preparation of a housing element as part of a jurisdiction's general plan (Government Code Section 65302(c)). The element is to consist of an identification and analysis of existing and projected housing needs, and a statement of goals, policies, quantified objectives and scheduled programs for the preservation, improvement, and development of housing. It is also required to identify sites for housing and to make adequate provision for the existing and projected needs of all economic segments of the community (Government Code Section 65583). The most recent amendments to housing element law (1986, Section 65583 (c)(1)) require site identification based on local need for emergency shelters and transitional housing.

Though it is desirable to prepare the Housing Element in conjunction with other General Plan Elements, it must be prepared so it can stand alone. It must be updated every five years so that it contains the most current version of the Regional Housing Needs Assessment (RHNA) developed by the local Council of Governments. [The Southern California Association of Governments (SCAG) issues the housing assessment for San Bernardino and the remainder of the SCAG six-county region.]

By incorporating the needs assessment, the Housing Element can monitor how well the established five-year goals, policies, and programs have met the housing needs of the community. The existing housing element was adopted in 1981 and as such does not include the 1983 through 1988 SCAG needs assessment. As a result, the analysis of existing programs will be limited to an assessment of how well existing programs have met needs as of 1988.

B. RELATIONSHIP TO OTHER PLAN ELEMENTS

In San Bernardino, the element is being prepared as part of the overall General Plan Update. As such, there is a unique opportunity to directly influence the Land Use and other General Plan Elements to address housing needs in the community. There are twelve elements of the General Plan which discuss factors that may limit the location of new housing. The geologic and seismic, flooding, hazardous materials/uses, fire and wind elements address hazards or nuisances that should be avoided in the location of housing or mitigated in the construction of housing. The biological resources, mineral resources, topography, water resources, visual resources, and historical and archaeological resources elements address land areas which should be protected from development. All of these factors will ultimately affect the type, location, and cost of housing and could, therefore, affect the community's ability to meet the goals of its Housing Element.

The Housing Element is further affected by development policies contained in the Land Use Element, which establish the location, type, intensity, and distribution of land uses throughout the City. The Land Use Element projects the number and type of housing units that can be ultimately constructed through the designation of acreages and densities of residential development. Acreage designated for commercial and industrial uses creates employment opportunities, which in turn, has the potential for creating a higher demand for housing in the City. The Circulation and Traffic Element establishes the location and scale of proposed thoroughfares, streets, and transportation routes which support and provide access to the proposed land uses.

Though the other General Plan Elements address the entire planning area, this Housing Element will set policy for the City of San Bernardino alone. This change in scale is desirable for the following reasons:

- The portion of the planning area that is part of the City's sphere of influence is legally within the jurisdiction of the County of San Bernardino, which prepares its own Housing Element for these areas,
- It is understood that monies from City-funded programs will only be expended within the boundaries of incorporation, and
- SCAG housing needs assessment statistics, critical to the preparation of the Element, are not available by planning area, but only by City and County jurisdiction.

For this reason, the study area for the purposes of the Housing Element has been modified to include only the 55 square miles within the City's corporate limits, unless otherwise noted.

C. DATA SOURCES

Extensive background work for the Housing Element has been incorporated into the City of San Bernardino General Plan Update Technical Background Report (TBR, February, 1988). However, most of the data in the TBR addressed the conditions for the entire planning area; the City of San Bernardino and its nine square miles of sphere of influence. Many statistics have, therefore, been revised to exclude sphere of influence, as this Element will address only the incorporated City of San Bernardino.

The primary data sources include the 1980 Census, Population and Housing Estimates for California Cities and Counties for 1988 prepared by the California State Department of Finance and the 1988 Regional Housing Needs Assessment (RHNA) prepared by the Southern California Association of Governments (SCAG). Data was also provided by the California Association of Realtors, the San Bernardino Valley Board of Realtors, the Construction Industry Board and a number of social services providers in the County of San Bernardino.,

The use of SCAG estimates for current and future households in need (Section Four) is mandated by State law. These estimates are also the only source of data at the City level on the numbers of rent burdened households at various income levels. The Department of Finance figures are used because they provide estimates of total populations, persons per household, vacancy rates, and the numbers and types of dwelling units. The Department of Finance estimates are based on a number of different sources of annual statistics such as changes in residential electrical customers, residential permits, and demolitions and vital statistics. This data is obtained from the localities themselves.

It was possible to determine the comparability of the SCAG and Department of Finance estimates by comparing the figure given by each data source for number of households. This number is provided by the SCAG estimates and can be calculated from data in the Department of Finance estimates.

SCAG estimates a total of 54,473 households in the City of San Bernardino. Using the Department of Finance total of 143,030 household members in 1988 (another 5,340 live-in group quarters) divided by the average household size of 2.626 people, yields a total of 54,467 households. These two numbers are sufficiently close together to assume with confidence that the data in the two estimates are comparable.

The 1980 Census is now eight years old and many of the population characteristics it measures may have changed considerably over those eight years. However, surveys updating 1980 data are usually conducted at the national or state levels. The large sample sizes required for accurate small area data are very expensive and most cities do

not conduct ongoing survey research on the changing character of their population. Therefore, the only data available on the distribution of the population by age and by ethnicity are the 1980 census data.

D. PUBLIC PARTICIPATION

An extensive public participation process has been an integral part of the General Plan Update program. The Citizens Advisory Committee (CAC) actively participated in the formulation of the Land Use Plan, which defined lands on which new housing will be permitted and their densities. Additionally, hearings were conducted with the public-at-large to solicit their input regarding the location and density of residential development. The housing element was reviewed in detail by an ad hoc subcommittee of the CAC and submitted to the entire committee for approval.

REVIEW OF 1981 HOUSING ELEMENT

The following presents a review of the City's 1981 Housing Element regarding its effectiveness, appropriateness of its goals, objectives, policies, and programs, and progress made in its implementation.

A. GOVERNMENTAL CONSTRAINTS

Governmental constraints on the provision of affordable housing have increased since 1981 due primarily to the substantial cutbacks in federal housing programs, including the Community Development Block Grant (CDBG) program. In addition, the effects of Proposition 13 continue to be demonstrated as many of the public improvement costs associated with housing must continue to be passed on to the developer in terms of increased fees which add to the cost and detract from the affordability of housing. The previous Housing Element did not anticipate the significant withdrawal of federal government support for affordable housing. Also, new constraints have been added with the recent limitations on local government's authority to issue tax-exempt mortgage revenue bonds to finance single-family and multi-family housing. The per capita "caps" on such funding has severely limited the ability of the City of San Bernardino to continue to promote the development of more affordable housing in an aggressive manner.

B. REVIEW OF 1981 HOUSING PROGRAM GOALS

Goal Number I

Preservation and Improvement of Existing Housing and Neighborhoods

Objective Number 1: Implement programs which contribute to rehabilitation and repair. This goal remains a primary goal of the City's overall housing strategy. Rehabilitation has occurred through the use of CDBG funds for single-family homes (supplemented by Section 312 funds when available) and rental rehabilitation funds for multi-family rehabilitation. Approximately forty-five (45) single-family homes are rehabilitated under these programs each year and rental rehabilitation funds are sufficient to permit an additional 20 units per year, on the average. Other state programs have been and will be utilized as funds become available. Limited City funds have been leveraged with private financing wherever appropriate.

Objective Number 2: Provision of quality public services and facilities. This objective also continues to be a priority. The City has actively pursued this objective with respect to certain areas where public services and facilities have been deficient. Concentration of these activities has been on the west side and has been augmented by the creation of "enterprise zones" which qualify for special incentives and fee reductions to promote economic and residential development.

Moreover, the City Community Development Department has financed in whole or in part the construction of four (4) community/senior centers with CDBG and other funds. In addition, approximately \$10,000,000 has been spent on capital improvements and other public infrastructure needs.

Objective Number 3: Eliminate unsafe and dilapidated housing and remove blighting influences from residential neighborhoods. This objective has also been actively pursued in a close relationship between the Department of Building and Safety and the Community Development Department. The issue of abandoned properties has received special attention and the City plans to structure a program to deal specifically with this issue. Redevelopment projects have sought to help remove blighting influences in project areas while, at the same time, minimizing displacement. Approximately seven (7) dilapidated structures have been demolished each year with CDBG funds and any residents facing displacement have all received appropriate relocation benefits. An additional twelve to thirteen (12-13) structures have been demolished annually by the City Building and Safety Department utilizing the City's general fund.

Objective Number 4: Promote orderly development of housing. This objective was carried out initially by the City's Redevelopment Agency from 1981-1986. The housing development function was transferred to the Community Development Department upon establishment of the department in September, 1986.

The vast majority of City-sponsored housing, especially from 1984-1986, was constructed through the use of mortgage revenue bond proceeds for both single- and multi-family dwelling units. Although roughly 900-1,100 dwelling units were constructed annually in the City for the better part of a decade, the imminent passage of the Tax Reform Act of 1986 caused a "rush" for the tax-exempt mortgage revenue bond financing which resulted in the construction of more than 3,000 dwelling units, many of them multi-family in nature.

It was this event coupled with the explosive growth of the San Bernardino-Riverside metropolitan statistical area that caused local citizens to question the City's overall housing strategy, and, subsequently, the appropriateness and relevancy of the City's General Plan.

Goal Number II

Promote the Affordability of Adequate Housing

Objective Number 1: Assist in the provision of low and moderate income housing. The City has proceeded toward this goal through operating an active infill housing program, issuing tax-exempt mortgage revenue bonds for new single-family and multi-family development, and the provision of Section 8 rental housing assistance provided under contract by the County of San Bernardino Housing Authority. Through these implementation programs some 2,073 households have been provided housing with rents tied to area median income and adjusted for family size. Approximately 833, 1,200 and

40 households were assisted through the Section 8 mortgage revenue bond and infill housing programs, respectively.

Objective Number 2: Remove any obstacles to the provision of affordable housing. The City's response in this regard is discussed above under "Governmental Constraints." In addition, the City will assist developers of affordable housing through priority processing of their project applications.

Goal Number III

To Avoid Loss of Affordable Housing Existing in the City

Objective Number 1: Limit reduction in affordable housing stock. The City has acted to prevent the conversion of affordable rental housing through limitation on condominium conversions. In addition, redevelopment project areas have been defined so as to eliminate or minimize displacement of low and moderate income families. The City has also operated an extensive housing rehabilitation program which has had the net effect of preserving a significant portion of the City's housing stock for low and moderate income households. Some five-hundred (500) households have been assisted during the period in question through house rehabilitation loan assistance and special programs such as "Operation Paintbrush."

Goal Number IV

Objective Number 1: Reduce the isolation of income groups by spatially deconcentrating housing opportunities for low and moderate income households. This objective remains a key focus for San Bernardino. The City is pursuing this arrangement through incentives for more moderate income developments in lower income neighborhoods (such as Orangewood Estates) and more low and moderate income housing on the east side (for example, through the Rental Rehabilitation Program). The General Plan also indirectly addresses this issue and density bonuses will be considered in cases where land costs are high and densities are low (such as the east side).

Objective Number 2: To eliminate discrimination in housing opportunities. The City contracts with the Inland Mediation Board (IMB) to handle all housing discrimination complaints. Also, IMB is required to do educational outreach and fair housing enforcement. In addition, the City seeks to promote equal housing opportunities directly through anti-discrimination and affirmative marketing requirements with all developers and contractors who do business with the City.

C. CONCLUSION

It appears that the 1981 Housing Element was generally effective in outlining the housing needs and appropriate responses of the City of San Bernardino. Obviously, it was not possible to predict the future, particularly the massive cutbacks in federal support for affordable housing and the constraints on tax-exempt financing. Nevertheless, the

1981 Housing Element represents a comprehensive effort to address the City's housing problems and suggests priorities and programs for resolving these problems.

The City has made progress in developing and implementing programs to address these issues. The background and perspective provided by the 1981 Housing Element as well as the City's experience in implementation have been incorporated into this updated Housing Element.

BACKGROUND DATA AND ANALYSES

A. POPULATION AND HOUSEHOLD CHARACTERISTICS

Through the analysis of certain demographic characteristics, population traits can be identified which affect the type of housing needs and the ability of households to pay for adequate housing. This chapter examines the following characteristics of the City's population, which are summarized in Table 8:

- Population and Growth Trends
- Age Composition
- Racial and Ethnic Composition

1. Population and Growth Trends

The population of the City of San Bernardino increased 26.3 percent between 1980 and 1988 from 117,490 to an estimated 148,370. This increase contrasts sharply with the limited 13 percent growth in the ten year period between 1970 and 1980, a contraction of growth attributed to decreased employment at Norton Air Force Base. During that same decade, the County and State grew at 30.8 percent and 18.6 percent, respectively.

The City's 26.3 percent population increase is lower than that of the County overall where population increased an estimated 38.5 percent between 1980 and 1988. The estimated increase statewide was 18 percent. The City now has an estimated 12 percent share of total San Bernardino County population. This continues an established pattern of relative decline in the City's percentage of the overall County population. In 1980 the City held 13.1 percent of the County's total population and in 1970 it held 17 percent of the total.

For the near future, it is expected that San Bernardino's population will continue to grow at current rates. But because County growth rates are higher, San Bernardino's share of the total County population will continue to drop, although the rate of decline will be less steep than in the 1970-1980 period.

2. Age Composition

In 1980, the City's age composition was not significantly different than that of the County or the State. About half of the population was concentrated in the young adult and middle age ranges (18-54 years). In all three jurisdictions, approximately 30 percent of the population were under 18 years of age, while approximately 20 percent were over 55 years of age.

TABLE 8

Selected Population Characteristics*

	CITY		COUNTY		STATE	
	1980	1988	1980	1988	1980	1988
Total Population	117,490	148,370	895,016	1,239,967	23,667,888	28,018,710
Age Distribution						
Under 18 years	28.2%	no data	30.2%	no data	27.1%	no data
18-54 years	50.7%		51.3%		53.6%	
55 years+	21.0%		18.6%		19.5%	
Median Age	28.6		28.4		29.9	
Racial and Ethnic Composition						
White	57.2%		73.2%		67.0%	
Spanish Surname	25.4%		18.5%		1.9%	
Black	14.6%		5.2%		7.5%	
Asian	1.5%		1.7%		5.2%	
Native American	1.0%		1.1%		0.8%	

* Source: 1980 Census and 1988 State Department of Finance, Population and Housing Estimates for California Cities and Counties.

One notable trend in the age composition of the population is the gradual increase in the median age. The median age has risen from 27.9 in 1970 to 28.6 in 1980 and 30.6 in 1987. These figures are consistent with County and State figures which all indicate an aging population.

3. Racial and Ethnic Composition

The City of San Bernardino has a population of great ethnic diversity. The 1980 proportion of minority population in the City was 42.7 percent, a proportion higher than both the County proportion of 26.5 percent and the Statewide proportion of 32.5 percent.

The ethnic distribution of City, County and State population based on the 1980 Census appear in Table 8. The percentage of people with Spanish surnames living in the City in 1980 totaled 25.4 percent a proportion exceeding that of both the County (18.5) and the State (19). The percentage of black population was 14.6 percent, more than twice the County percentage (5.2) and nearly twice the Statewide figure of 7.5 percent. On the other hand, the Asian population in 1980 was similar in City, and County at 1.5 and 1.7 percent respectively, about three times less than the State's 5.2 percent.

4. Household Income

The 1980 median household income for the City was \$14,009, compared with \$17,463 for the County and \$18,248 for the State. A higher portion of the City's families (16.3 percent) lived in poverty, as defined by the U.S. Census, than in the County (11.1 percent) or the State (11.4 percent). Black and Spanish surname families are over-represented in the poverty category with 28 percent of black families and 25 percent of Spanish surname families living in poverty. White families were the racial group least likely to live in poverty (11 percent).

The highest family income category reported in the 1980 census was the "greater than \$50,000 per year" category. One (1) percent of the City's families enjoyed this level of income. However, only 0.3 percent of the City's black families and 0.2 percent of the Spanish origin families were in this income category. White and Asian families are represented in the highest income category at levels nearly equal to the City's overall population (1 percent).

By 1988 the County median income for a family of four established by HUD was \$30,300. No current data are available for the City, however, in 1980 the City's median income was 80 percent of the County median. While it is not possible to verify the continued lag in City income, several factors indicate that City median income may still be lower than that of the County overall. First, the median house price in November 1988 for the area served by the San Bernardino Valley Board of Realtors was \$91,500, compared to \$113,220 in the San Bernardino-Riverside County region. Second, a recent national study by the Economic Policy Institute using Census Bureau data shows that the poorest two-fifths of the population have actually experienced a decline in income since 1979; the poorest 20 percent show a 10.9 percent decline in personal income.

5. Employment

Approximately 55 percent of the 47,780 working residents in 1980 were employed in "white collar" occupations, such as executive, administrative, managerial, professional, clerical, and sales positions. Approximately 46 percent were employed in "blue collar" jobs such as machine operators, assemblers, farming, transportation, handlers, and laborers. These statistics are not significantly different from County and State averages. Approximately 6 percent of the work force is employed in the armed forces in San Bernardino, which is significantly higher than the County (4.6 percent) and the State (2.3 percent).

A very high percentage (88 percent) of the workers were employed in the Riverside-San Bernardino-Ontario SMSA, with 57 percent employed within the City limits. Approximately 83 percent of employed residents commuted less than one-half hour to their place of employment, and only 7 percent had a travel time of more than 45 minutes.

6. Household Size

The City's average household size decreased from 2.90 persons in 1970 to 2.62 in 1980, consistent with the significant drop experienced at regional and national levels. A majority (58 percent) of the households in the City were made up of one or two people. Households of three or fewer made up nearly three-quarters of all households (74 percent), while households consisting of six or more members represented only 5 percent of the total. The distribution is consistent with State-wide characteristics.

Department of Finance estimates for 1988 show a current average household size of 2.6 persons for the City, 2.7 for the County and 2.8 for the State.

7. Overcrowding

In 1980, 6.9 percent of all San Bernardino households were overcrowded (more than 1.01 persons per room), although the proportion of overcrowded households was higher for renters and for Black and Latino households. There was slightly less overcrowding in the City than State-wide where 7.4 percent of all households were overcrowded. Since household size has remained constant in the City over the last eight years, it is likely that the proportion of overcrowded households has not changed and that there are now about 3,756 overcrowded households in San Bernardino. However, there may have been some increase in overcrowding if households have doubled up to cope with the rising price of housing.

8. Group Quarters

In 1980, 5,024 people or 4.2 percent of the City's residents lived in group quarters such as mental hospitals, homes for the aged, group homes and dormitories. Both Patton State Hospital and Norton Air Force Base are within the City.

Between 1980 and 1988, the number of people in group quarters remained virtually unchanged but their proportion of the population declined. Department of Finance estimates for 1988 show 5,340 residents in group quarters or 3.6 percent of total 1988 City residents.

B. HOUSING CHARACTERISTICS

This section describes certain characteristics of the City's housing supply, including type, ownership, vacancy, costs and condition, which are summarized in Tables 9, 10 and 11.

1. Supply and Type

Tables 9 and 10 compare changes in population and housing supply for the City, County and State between 1980 and 1988. 1980 data are derived from the State's summary reports of the 1980 Census; 1988 data are estimates prepared by the State Department of Finance.

In the City of San Bernardino total housing units increased 12,113 from 43,458 to 58,571 between 1980 and 1988. This represents a 26.1 percent increase since 1980. During this same period the City's population increased by 26.3 percent, so growth in housing supply appears to be in keeping with population increase.

There was a shift in the relative proportion of dwelling types in the period under study. Between 1980 and 1988 single family units dropped from 68.9 to 61.4 percent of the total supply while multi-family units increased from 24.7 percent to 32.6 percent of total units. The percentage share of mobile homes dropped slightly, from 6.4 to 6 percent. While the County's housing supply experienced similar changes over this period, the 1988 unit mix was still heavily dominated by single family homes. In 1980 the County proportion of single family units was 75 percent, in 1988 it had only dropped to 71.1 percent. Multi-family units increased from 17.1 percent to 22.4 and mobile homes remained virtually unchanged, 6.9 percent in 1980, 7 percent in 1988.

The County population grew even faster than that of the City: the County's population increased by 38.5 percent and total units grew by 36.2 percent. These figures are literally more than twice those experienced statewide. Between 1980 and 1988 the State's population grew by 18% while units increased by 15.4 percent.

TABLE 9

Selected Housing Characteristics 1980 and 1988¹

<u>Characteristic</u>	<u>City of San Bernardino</u>		<u>Increase / Decrease</u>	<u>Percent Change</u>
	<u>1980</u>	<u>1988</u>		
Population	117,490	148,370	30,880	+26.3%
Households	43,048	54,567	11,519	0
Persons per Household	2.62	2.62	0	-0.1%
Dwelling Units	46,458	58,571	12,113	+26.1%
Single-family	31,998	(68.8%) 35,964	(61.4%) 3,966	+12.4%
Multi-family	11,472	(24.7%) 19,108	(32.6%) 7,636	+66.6%
Mobile Homes	2,958	(6.4%) 3,499	(6.0%) 541	+18.3%
Vacancy	9.2% (1981)	7%		
Median Household Income	\$14,009	\$30,000	(County Median 1988) ²	
Median Contract Rent	\$195	\$330	(Rough Estimate) ³	
Median House Value	\$51,925	\$91,500	(November 1988) ⁴	
Percent Owner Occupied	59.4%	-	(Data not available)	

1. Source: 1980 Census and 1988 State Department of Finance Population and Housing Estimates for California Cities and Counties.

2. Median income for the City is probably lower. In 1980 City median income was 80% of County median. The difference in median house price between the two jurisdictions, \$113,220 for the Riverside-San Bernardino area compared to \$91,500 for the San Bernardino Valley area indicates that median incomes in the City are still lower than those in the County as a whole.

3. Empire Economics, San Bernardino City's Optimal Housing Product Mix, 1987.

4. San Bernardino Valley Board of Realtors Multiple Listing Sales Report for November 1988.

TABLE 10
Selected Housing Characteristics 1980 and 1988¹

<u>Characteristic</u>	County of San Bernardino			<u>Increase/ Decrease</u>	<u>Percent Change</u>
	<u>1980</u>	<u>1988</u>			
Population	895,016	1,239,967		344,951	38.5%
Dwelling Units	370,155	503,983		133,828	36.2%
Single-family	280,327	(75.7%)	358,360	(71.1%)	27.8%
Multi-family	63,367	(17.1%)	113,111	(22.4%)	78.5%
Mobile Homes	26,461	(7.2%)	32,512	(6.5%)	22.9%
Vacancy		15.1%			
Incorporated		8.0%			
Unincorporated		25.7%			
Persons Per Household		2.8			

<u>Characteristic</u>	State of California			<u>Increase/ Decrease</u>	<u>Percent Change</u>
	<u>1980</u>	<u>1988</u>			
Population	23,667,902	28,018,710		4,350,808	18.4%
Dwelling Units	9,223,121	10,708,254		1,685,133	18.0%
Single-family	5,758,168	(62.4%)	6,517,313	(60.9%)	13.2%
Multi-family	3,079,194	(33.4%)	3,720,324	(34.7%)	20.8%
Mobile Homes	385,759	(04.2%)	470,617	(04.4%)	22.0%

1. Source: 1980 Census and 1988 State Department of Finance Population and Housing Estimates for California Cities and Counties.

TABLE 11

Age of Housing Stock
City of San Bernardino

<u>Year Built</u>	1980 Percent of Stock	1988 Percent of Stock
1980+	N/A	20.7%
1970-1979	20.3%	16.1%
1960-1969	20.3%	16.1%
1950-1959	27.3%	21.6%
1940-1949	17.4%	13.8%
1939 or earlier	14.7%	11.7%
Percent 30 years old or more	32.1%	47.1%

Source: U.S. Census 1980 and Envicom Corporation.

During the same period the distribution of housing units by type changed only slightly State-wide. In 1980 single family units represented 62.4 percent of the total housing stock, by 1988 this share had dropped to 60.9 percent. Multi-family units increased from 33.2 to 34.7 percent of the total stock while mobile homes increased from 4.2 to 4.4 percent of the total. San Bernardino's mix of housing is beginning to resemble that of the state as a whole more than it resembles that of the County.

2. Ownership

In 1980 the City had an ownership rate of 59.4 percent. This was significantly lower than that of the County (68.3 percent) but was actually a little higher than the statewide rate of 55.9 percent. The 1980 distribution of owners and renters was virtually unchanged from the 1970 census when 58.8 percent of all units were owner occupied. No 1988 data is available on the distribution of owners and renters in the City.

3. Vacancy Rates

At the City level, State Department of Finance data show a slight drop in vacancy between 1981 (the first year in Department of Finance estimates) and 1988. Vacancy in San Bernardino in 1981 was 9.2 percent, by 1988 it was 7 percent. Comparisons with the County have to be divided into incorporated and unincorporated because the large number of vacation homes located in San Bernardino County give the unincorporated areas a whopping 25.7 percent vacancy rate while the incorporated areas show a composite rate of 8 percent. The overall State rate is lower, 6.3 percent.

In 1980 the Census data showed a vacancy rate for for-sale housing of 3.9 percent while rental housing had an 8.7 percent vacancy rate.

4. Housing Value and Costs

In 1980 the median price of a home in the City of San Bernardino was \$51,925. By 1988 the median house price, based on Multiple Listing Data, had risen 76.2 percent to \$91,500. County house prices rose a little more from \$63,400 in 1980 to \$113,220 in 1988, a change of 78.6 percent. However, changes in housing prices in the City and County are modest compared to what happened statewide between 1980 and 1988. In 1980 the median price of a house statewide was \$84,745, by 1988 it had more than doubled, rising 106.9 percent to \$175,295.

Rents also changed in the period 1980 to 1988, however, little accurate data is available to compare rent levels. Median contract rent in the City in 1980 was \$195 per month. A very rough estimate of 1988 median rent can be derived from data in the Empire Economics Study, San Bernardino City's Optimal Housing Product Mix, 1987. An estimate of the median point for 1988 rents derived from this study is about \$330 per month.

5. Age and Condition

The age of San Bernardino's housing stock is advanced in relation to the County's and the State's. In 1980, only 20.3 percent of the City's housing was ten years old or less compared to 32.1 percent for the County and 26 percent for the State. On the other hand, approximately 32 percent of the City's housing stock was greater than 30 years old, compared to 19 percent of the County's and 27 percent of the State's.

It was estimated that by 1987, approximately 47 percent of the City's housing stock was 30 years or older, with an additional 19 percent between 20 and 30 years old. These statistics indicate the potential need for rehabilitation and continued maintenance for nearly 35,440 dwelling units in the city based on age alone¹. The greatest concentration of older housing units is in the central city area, with over 5,950 dwelling units being of pre-1949 vintage.

The City's 1988 Housing Assistance Plan identifies 6,281 substandard² housing units within the City, representing nearly eleven percent of the City's 1988 housing stock. Approximately 57 percent of these units are owner occupied, 38 percent renter occupied, and five percent vacant. The HAP further breaks down substandard units by those which are suitable for rehabilitation, identifying 4,806 units (or 77 percent of all substandard units) as suitable for rehabilitation².

A windshield survey of building conditions in the city was conducted by the Planning Department between May and September, 1987. Deteriorated and dilapidated structures were inventoried and are mapped in Figure 7. The survey identified 1,100 deteriorated and 150 dilapidated structures located throughout the planning area.

It should be noted that this survey identified substandard units based on exterior appearance alone, and does not account for units which are substandard due to plumbing, electrical, roofing, or structural deficiencies which are accounted for under the HAP count of substandard units.

1. Source: Envicom Corporation. Calculations based on extrapolation of data for entire planning area from TBR, 02/88.

2. Substandard is here defined as units which do not meet local building code.

2. Suitable for rehabilitation is defined as units which are structurally sound and for which the cost of rehabilitation would not exceed the lower of 80 percent of the replacement cost, or 80 percent of the market value after rehabilitation.

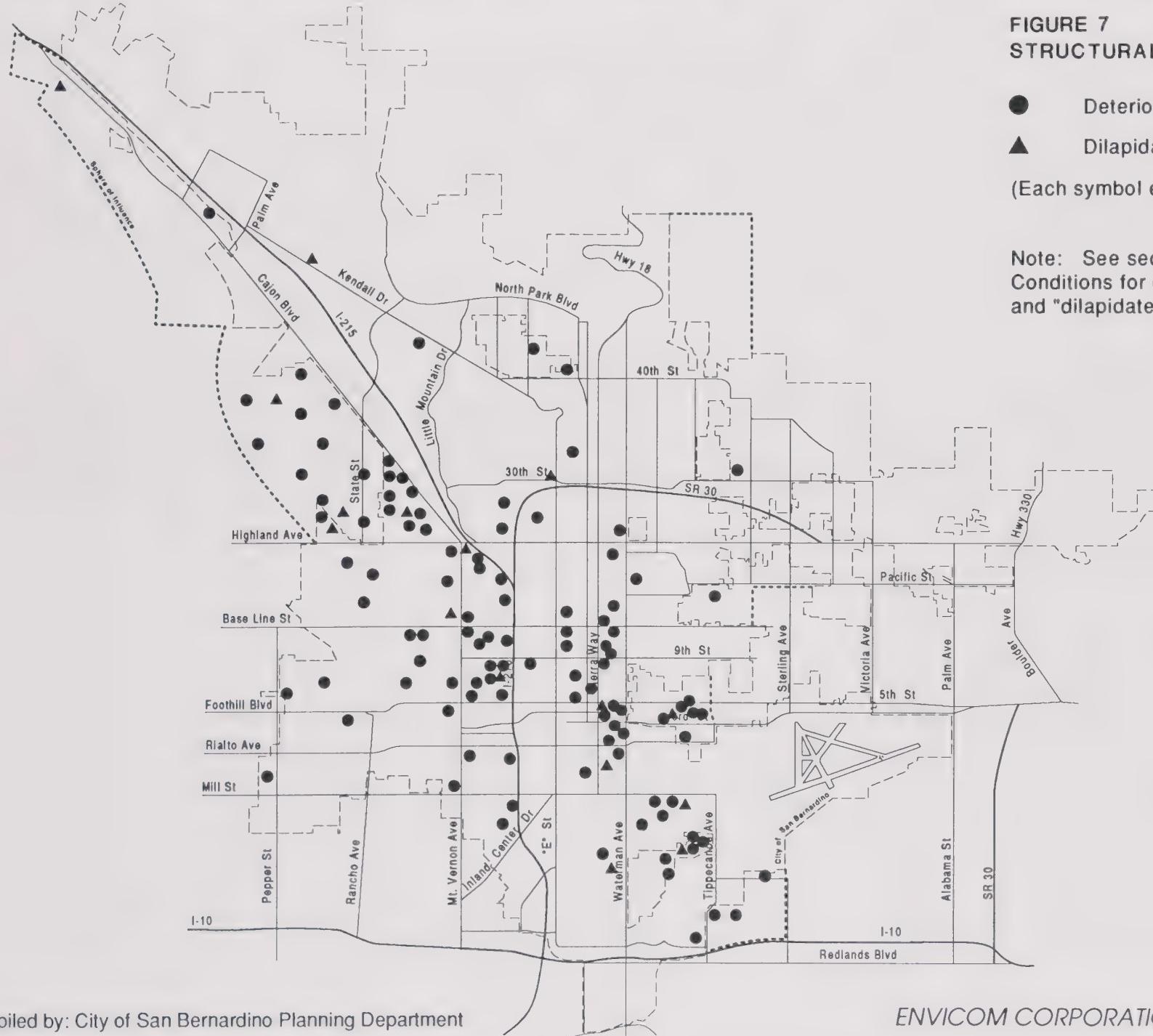


FIGURE 7 NOTES

Definition of Categories Used in Figure 7

- **Standard:** No major deficiencies, although structure may require minor maintenance, painting and general clean-up.
- **Deteriorated:** Structure contains several deficiencies such as patched, loose, or missing roofing material; missing or broken windows; wood trim or siding worn, weathered or broken; paint cracking or peeling; loose or worn wiring, etc.
- **Dilapidated:** Structure contains one or more major structural deficiencies such as loose protective surface (brick, plaster, wood, siding, etc.); settled porch or roof; weakened structure or inadequate foundation; obvious deviation from plumbing; extensive damage due to fire, etc.

While the survey included commercial and industrial as well as residential uses, very few non-residential buildings were identified as substandard. Areas containing concentrations of deteriorated or dilapidated buildings include downtown residential areas, areas south of Highland Avenue between Medical Center Drive and the I-215 Freeway, areas south of Mill Street and east of Waterman Avenue, and Delmann Heights.

The following generally describes the structural conditions in each quadrant of the City as defined in the Land Use and Urban Design Element. Some of the areas described below may contain neighborhoods that are outside the City's boundaries.

In the northwest quadrant, the area northwest of University Parkway and Cajon Boulevard, contains very few deteriorated structures. The substandard units are single family residences.

Around the California State University campus are newer single and multiple-family developments in standard condition. Between North Park Boulevard and the foothills, the structures are primarily single-family residential, also in standard condition.

The neighborhoods located around the intersection of the Crosstown and I-215 Freeways contain older single-family structures. North of the Crosstown Freeway are fewer than five deteriorated structures, whereas south of the freeway this number triples. The deteriorated structures are single-family residences with the exception of two commercial structures on Highland Avenue.

Northwest of Highland Avenue and Cajon Boulevard, including the Muscoy and Delmann Heights areas are nearly 200 deteriorated and 25 dilapidated structures. The substandard structures are single-family residential and are scattered throughout the area.

The entire northeast quadrant contains fewer than 50 deteriorated and five dilapidated structures. There are some substandard single-family structures around Waterman Avenue and substandard single and multiple-family structures in proximity to the Crosstown Freeway.

The southernmost portion of the City, located south of the I-10 Freeway, contains only two deteriorated single-family structures. Like the Commercenter and Tri-City areas north of the freeway, development is fairly recent and in standard condition.

Around Waterman Avenue and Central Avenue is a mix of residential, commercial and industrial developments with approximately 100 deteriorated and 15 dilapidated structures. Most of the substandard structures are residential, primarily single-family. A few substandard commercial buildings are found along Waterman Avenue.

The area south of Norton Air Force Base around Tippecanoe Avenue contains single-family and industrial uses. The industrial uses are generally in standard condition and the substandard units are primarily single-family structures.

The area around Central City, generally between "E" Street and Waterman Avenue from Mill Street to 9th Street, contains approximately 150 deteriorated and 20 dilapidated structures. They include a mix of residential, predominantly single-family structures. There are some substandard commercial buildings along Waterman Avenue.

Of the single-family structures located west of Waterman Avenue and north of 9th Street, there are approximately 60 which are deteriorated and less than 10 which are dilapidated.

There are nearly 60 deteriorated single- and multiple-family structures in the area east of Waterman Avenue, south of Base Line Street. Over half of these substandard structures are located between 3rd and 6th Streets. There are a few substandard commercial buildings along both sides of Base Line Street.

From Base Line Street to Highland Avenue, and east to the City limits, there are fewer than 45 deteriorated structures. With the exception of a few commercial buildings along Base Line Street, the substandard structures are mainly single-family residences. These substandard units are dispersed throughout neighborhoods of standard single-family structures. An exception, however, is a small area at Highland and Arden Avenues where there is a considerably higher number of substandard multiple-family units.

Between Mt. Vernon Avenue and the I-215 Freeway in the Southwest quadrant lies an older area containing single-family residences with some multiple-family residences distributed throughout. This corridor, extending from Highland Avenue to 5th Street contains approximately 150 units in deteriorated condition, but less than ten dilapidated structures. The majority of the substandard structures are single-family residences. While this number seems high, the area is fairly well developed and the substandard structures are dispersed throughout many single-family neighborhoods of standard condition. Along Mt. Vernon Avenue, Highland Avenue and "I" Street are commercial structures in substandard condition.

West of Mt. Vernon Avenue between Highland Avenue and Foothill Boulevard are nearly 100 deteriorated residential structures. The majority of these structures are located south of Base Line Street and are a mix of single and multiple-family units. There are approximately five deteriorated commercial structures along Base Line Street. Surrounding the Santa Fe rail yard are older residential, commercial, and commercial-industrial areas with deteriorated structures in all uses, although the substandard structures are predominantly residential.

The area surrounding San Bernardino Valley College contains approximately 50 structures in deteriorated condition. These structures are predominantly single-family residential with some multiple-family units near Rialto Avenue. There are a few deteriorated commercial and commercial-industrial structures along Inland Center Drive and Rialto Avenue.

In the southwest portion of the City that borders on the City of Rialto, there are a large number of mobile home parks in standard condition. The few substandard units that exist are single-family residences in older neighborhoods.

C. POTENTIAL RESIDENTIAL DEVELOPMENT

The total number of potential units addressed by the Draft Housing Element is smaller than those identified in the Draft General Plan Land Use Element because the former's analysis is limited to the area within the City's current jurisdictional borders, while all the other elements analyze the 64 square miles comprising the planning area.

Within the City of San Bernardino, the Draft Land Use Plan Map land use designations will accommodate an additional 25,190 units on 8,496.7 acres of land. The number of units within current city limits is approximately 10 percent smaller than the planning area total of 28,120. The resulting proportion of single-family and multi-family units within city limits therefore differs slightly from the planning area distribution.

Table 12 shows the development densities of the various land use designations and the number of units that could be developed at each density. Some of the designated land is vacant, other parcels have been rezoned, in most cases to accommodate increased density. The size of available parcels of land varies widely, providing ample opportunities for both infill development and new subdivisions.

While land in the categories of residential estate and residential low and in the Hillside Management Overlay allows the development of higher priced housing, the 11,545 units in the medium-, medium-high, high-density, Regional Commercial and General Commercial/Mixed Residential classifications offer some opportunity for the production of more affordable ownership housing such as condominiums or townhouses. Other opportunities for increasing housing affordability include the provision for mobile homes throughout the City. Finally, rental housing could be built in medium and high density, the downtown, and mixed commercial-residential areas.

Table 13 shows the distribution of potential single-family and multi-family units by quadrant. The distribution of types City-wide is skewed slightly. Single-family development accounts for 54.2 percent of the potential units and multi-family development accounts for 45.8 percent of the total units.

Figure 4, Existing Land Use, shows the distribution of residential uses in the City by single-family and multiple-family densities. Figure 5, Generalized Land Use Concept, includes vacant lands that are designated for residential uses and existing residential areas where higher densities are permitted.

About half of all potential multi-family units would be in the southeast quadrant of the City while nearly half of all potential single-family units would be in the northwest quadrant.

TABLE 12

Potential Residential Development Within City Limits
(As Accommodated by the Draft Land Use Plan)

<u>Land Use Designation</u>	<u>Maximum Density</u>	<u>Potential Units</u>	<u>Percentage</u>
Residential Estate	1 upa	572	3
Residential Low	3 upa	3,568	14
Residential Suburban	4.5 upa	2,976	12
Residential Urban	9 upa	4,672	19
Residential Medium	14 upa	6,152	24
Residential Medium-High	24 upa	2,596	10
Residential High	36 upa	428	2
Regional Commercial (Downtown)	54 upa	588	2
General Commercial/Mixed Residential	14 upa and 24 upa	1,781	7
Hillside Management Overlay District	(Avg. 0.8 upa) ¹	1,857	7
Total		25,190	100

Source: Envicom Corporation

1. upa = units per acre.

TABLE 13

Potential New Residential Development Within City Limits
by Quadrant

<u>Quadrant</u>	<u>Single-family</u>		<u>Multi-family</u>		<u>Total</u>	
	<u>Acres</u>	<u>DUs</u>	<u>Acres</u>	<u>DUs</u>	<u>Acres</u>	<u>DUs</u>
Southeast	107.7	784	544.6	6,150	652.3	6,735
Southwest	808.1	3,658	262.5	2,708	1,070.6	5,857
Northeast	3,301.4	2,777	129.8	1,553	3,431.2	3,951
Northwest	3,251.7	6,426	90.9	1,134	3,342.6	6,727
Total	7,468.9	13,645	1,027.8	11,545	8,496.7	25,190

Source: Envicom Corporation.

FIGURE 4
GENERALIZED EXISTING LAND USE

-  Low Density Residential (1 - 7 d.u. / ac.)
-  Medium / High Density Residential (8+ d.u. / ac.)
-  Commercial (General and Office)
-  Industrial (Light and Heavy)
-  Public
-  Flood Control/Open Space
-  Vacant

(Source: City of San Bernardino Planning Department)

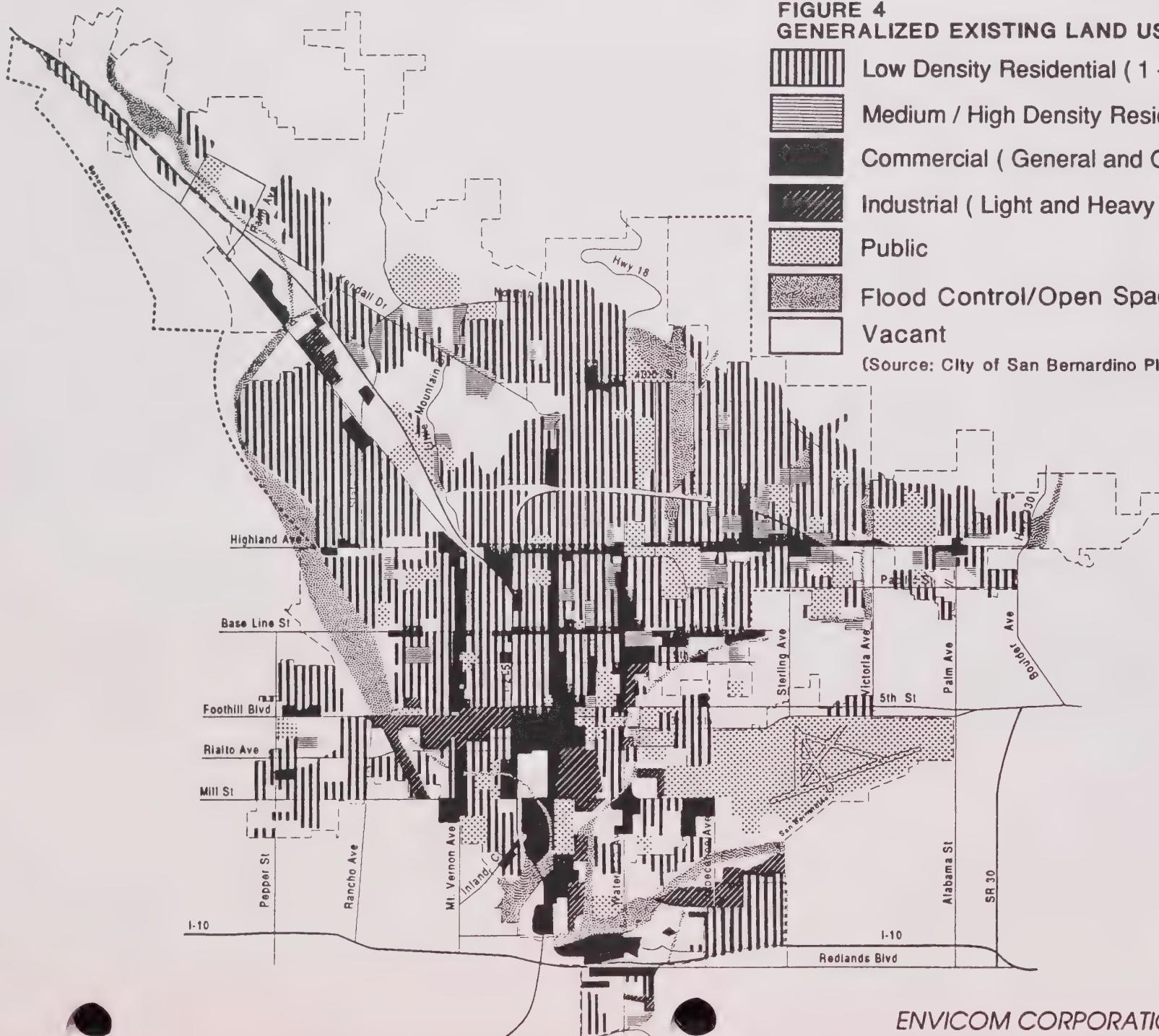
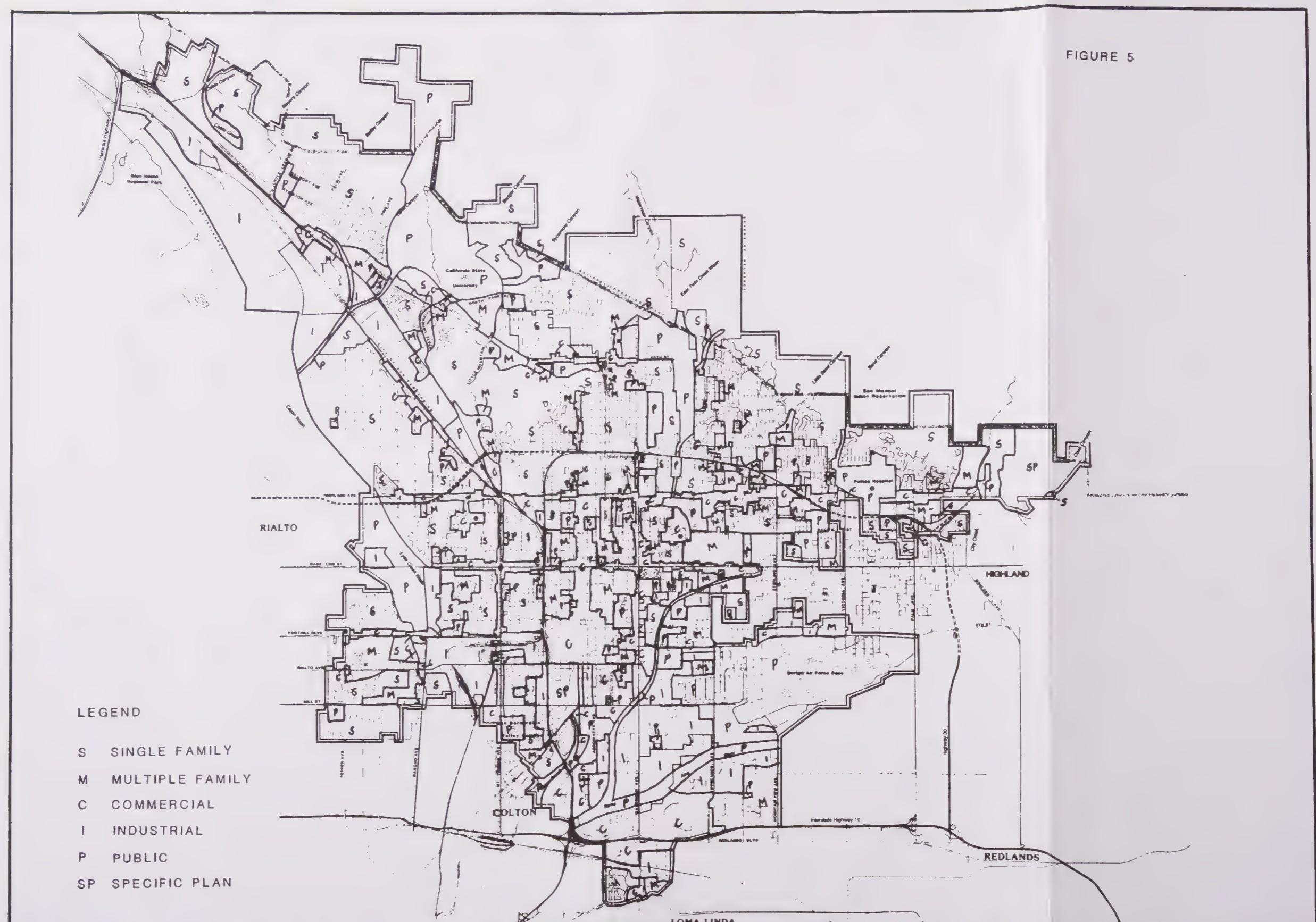


FIGURE 5



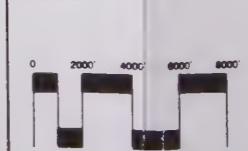
GENERALIZED LAND USE PLAN

**City of San Bernardino
General Plan**

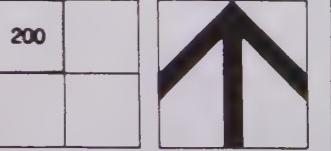
ENVICOM CORPORATION In association with

DKS ASSOCIATES • NATELSON - LEVANDER - WHITNEY •
ALBERT A. WEBB ASSOCIATES •
ROSENOW SPEVACEK GROUP, INC. • STAGE ASSOCIATES

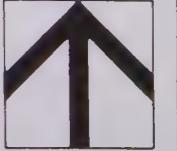
SCALE

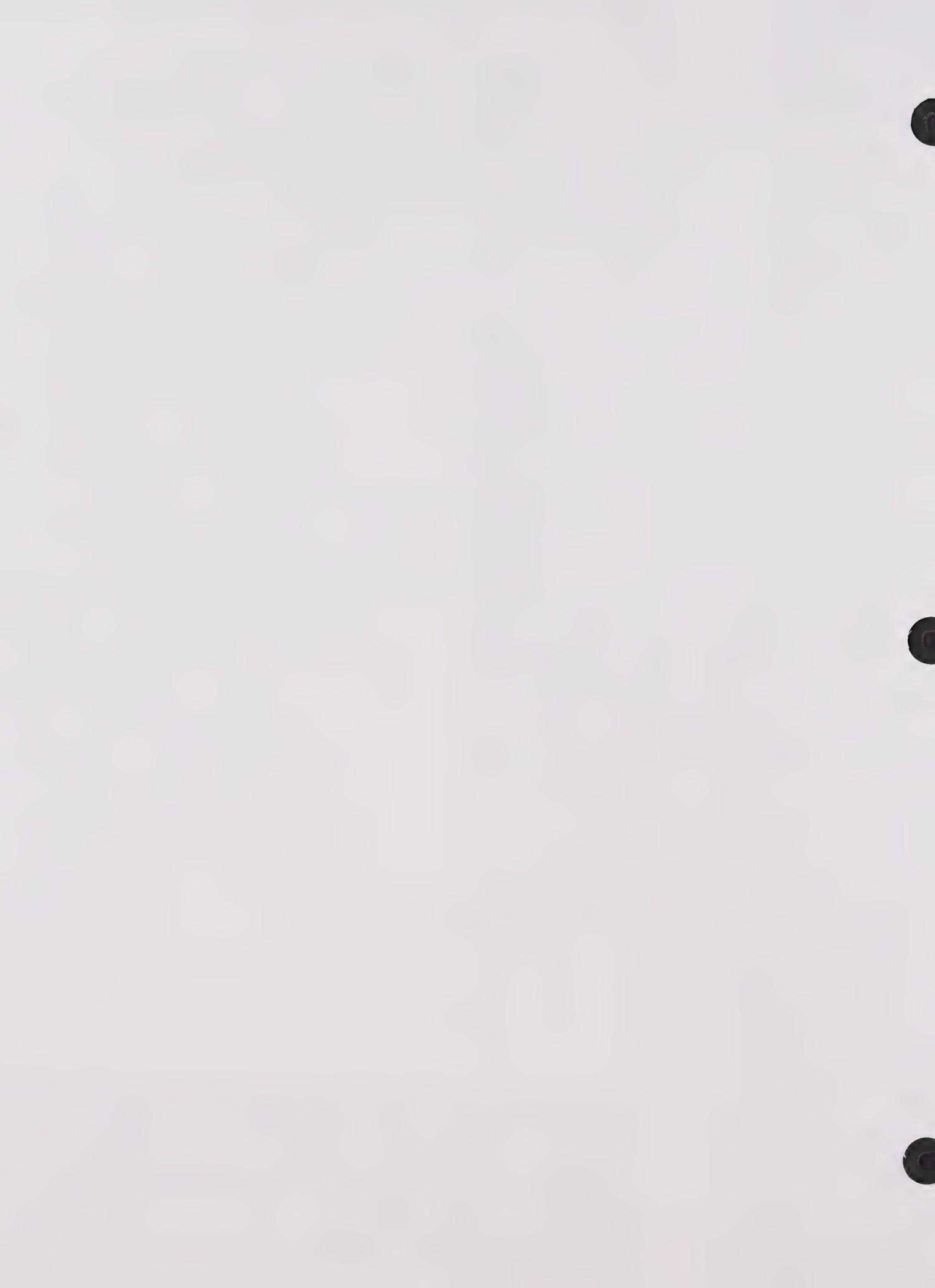


ACRES



NORTH





Of the 8,496.7 acres on which the new residential units will be developed, 7,264.6 acres are vacant and 1,232.1 acres are developed with low density housing and will be recycled at higher densities. Generally, the vacant lands occur on the periphery of existing development, primarily in the northwest and northeast along the foothills, in the southeast along Interstate 10, and in the southwest. Large vacant parcels, also, are found near the downtown. Areas subject to residential intensification primarily occur east of Interstate 215, between the downtown and Highland Avenue, and west of I215 to Mount Vernon Avenue.

D. HOUSING NEEDS

Housing needs can be classified as those associated with current city residents and those related to potential and future residents. The characteristics of each are evaluated in this section.

1. Current Housing Needs

The housing needs of the city's existing residents are related to affordability, suitability, and special needs groups.

a. Affordability of Housing

The June, 1988 Regional Housing Needs Assessment (RHNA), formulated by the Southern California Association of Governments (SCAG), estimates that in January, 1988, approximately 11,775 households in the City (21 percent of the total) were considered "in need". A household is defined as "in need" when it is a lower income household (whose income is 80 percent or less of the County's median income, with adjustment for household size) paying over 30 percent of its income for housing. Federal and State agencies regard income-to-housing costs ratio greater than 30 percent as an "inordinate share of income" for housing, called "overpaying".

Of those lower income San Bernardino households identified as overpaying for housing, 8,993, or 76 percent, are renters. A number of factors contribute to this condition. Statewide, the median income for renter households is less than half of that of owner households. Though the median contract rent for San Bernardino is lower than both the County and the State median, the City also has a higher percentage of persons living in poverty than in the County or the State. In part, this is attributable to the limited range of job opportunities in the City and their comparative low salary levels. Some lower-income households occupy dwelling units whose rental value has increased while their per capita income has either remained the same or decreased due to changing household size (having children or taking in a relative) or changing income (retirement, or loss of employment by one or more members of the household).

(1) Rental Costs

In the eight years since the 1980 Census, housing costs throughout the U.S., and particularly in California, have increased more rapidly than income. Reliable current surveys of local rental housing costs do not exist so it is necessary to apply indices of housing costs increases to census data in order to estimate 1988 rental prices. In 1987 the City of San Bernardino commissioned Empire Economics to prepare a study of the city's housing market. That study, entitled San Bernardino City's Optimal Housing Product Mix contains estimates of a range of 1986 rents and the numbers of units at each price. Those rents were increased an additional five percent per year for 1987 and 1988 to produce the following estimate of 1988 rental prices in San Bernardino:

San Bernardino's Rental Housing Stock¹

<u>Rent Price</u>	<u>Number of Units</u>
\$ 0 - 85	126
86 - 164	1,236
165 - 197	836
198 - 230	1,017
235 - 246	419
247 - 263	1,285
264 - 280	1,458
281 - 330	3,476
331 - 412	4,621
413 - 495	3,800
496 - 660	2,691
660 - 826	523
827 -	37
Total Units	
	21,525 ²

The following schedule of rents and incomes shows the rents that represent an expenditure of no more than 30 percent of income at various percentages of county median in San Bernardino.

1 Source: Empire Economics, San Bernardino City's Optimal Housing Product Mix, 1987.

2 Note on Estimates of Numbers of Housing Units: Empire Economics estimated that there were 21,525 rental units in the City in 1986. In order to check the accuracy of this estimate 1980 the proportion of 1980 renter occupied units was applied to 1988 Department of Finance unit estimates with a correction for the 7 percent vacancy rate. If 40.6 percent of occupied 1988 units are rental units then there are 22,115 rental units in the City in 1988. This figure is very close to the Empire Economics figure; the difference of 590 units probably represents units added between 1986 and 1988.

1988 County Median Income for a Family of Four: \$30,300

<u>Income</u>	<u>% of Median</u>	<u>Rent = 30%</u>
\$24,240	80%	\$606
\$21,210	70%	\$530
\$18,180	60%	\$455
\$15,150	50%	\$ 79

San Bernardino appears to have a good supply of units that are affordable to its low income households. In fact, more than 18,200 or 85 percent of all rental units are affordable to families at 80 percent of median income (\$24,240 for a family of four) and over 9,800 or 46 percent are affordable to households at 50 percent of median income (\$15,150 for a family of four). Nevertheless, SCAG estimates that there are nearly 9,000 renter households in the City who pay more than 30 percent of their incomes in rent while earning 80 percent or less of median income. With such an affordable housing stock, why are so many households rent burdened?

One source of explanation lies in the disparity between incomes in the City and in the County. The 1980 census provides data on median incomes for both jurisdictions. In 1980 the City had a median household income of \$14,009 while the County median was \$17,463, 24 percent greater. The difference in 1988 median housing prices (see below) between the County as a whole and the City indicates that income in the City is still lower than in the County.

Another explanation is the relatively high number of service sector jobs in San Bernardino. The increase in service sector employment opportunities in the local economy mirrors similar increase at the state and national levels. In view of the fact service sector jobs pay less than jobs in manufacturing and government sectors, the affordability of housing becomes less important than the wages paid to employees in this sector.

Because of the high number of households living at or below the area median income, it is important to recognize that the creation of higher paying jobs in the local economy can have a significant impact on the ability of a household to afford housing currently available in San Bernardino. The goals, objectives and policies set forth in the Land Use and Economic Development elements must be developed to address this aspect of the affordable housing equation.

An analysis of census data by the Economic Policy Institute show that nationwide the average family income of the poorest fifth of population declined by 10.9 percent (adjusted for inflation) between 1979 and 1986 while among middle and upper income groups income in constant dollar terms actually increased¹.

¹ New York Times, Sunday December 18, 1988. Section 4, page 1.

(2) Purchase Prices

Median house prices in the San Bernardino-Riverside region are very affordable when compared to the state as a whole. Figures prepared by the California Board of Realtors for October 1988 show a statewide median house price of \$175,295. An annual income of \$54,863 would be necessary to purchase this house. Board of Realtors October 1988 statistics for the San Bernardino-Riverside County region show a median house price of \$113,220 requiring an annual income of only \$35,435.

Sales price data for a smaller area around the City of San Bernardino can be obtained from the monthly MLS Sales Report of the San Bernardino Valley Board of Realtors. The area encompassed by this Board of Realtors includes the following areas: Bloomington, Colton, Devore, Fontana, Grand Terrace, Highland, Loma Linda, Muscoy, Rialto and San Bernardino. According to the MLS Sales Report for November 1988, the median residential sales price in November was \$91,500. The income necessary to support payments on a house of this price would be \$28,600¹.

The City considers that it does not have an adequate supply of housing at the high end of the scale and SCAG's future needs allocation recognizes this need for an increase in higher priced housing in its future needs allocation. The SCAG future needs estimate provides for about 65 percent more units for moderate and high income households than for low and very low income households.

b. Special Needs Households

Certain segments of the population may have a more difficult time finding decent, affordable housing due to special circumstances. In San Bernardino, these "special needs" households include the elderly, handicapped persons, large families, female-headed households, and the homeless.

(1) Elderly

(a) Need

Elderly residents may have many special needs. A number of elderly people have low, fixed incomes that cannot keep pace with rising housing costs. Other elderly people may have physical disabilities and require assistance in the tasks of everyday life. This section addresses only the question of housing assistance for low income seniors.

In 1980, there were 13,256 people over age 65 in the City of San Bernardino, representing 11.8 percent of the City's population. If the proportion of residents age 65 and over in the City has remained the same, there are now about 17,507 people over age 65.

¹ Income calculated according to formulas set by the California Association of Realtors for October 1988.

In 1980, 1,412 residents over age 65 or 10.7% of all seniors had incomes below the federal poverty line, \$7,412 dollars in 1980. If that proportion has remained constant, then there are about 1,873 elderly residents with income below the poverty line in San Bernardino. That number is probably greater because the incomes of the elderly would have remained relatively unchanged while housing costs have increased dramatically since 1980.

For purposes of the Housing Assistance Plan, HUD (Federal Department of Housing and Urban Development) estimates that about 2,120 elderly households in San Bernardino have incomes at 50 percent or less of median income and require assistance with housing costs.

(b) Potential Solutions and Resources

Increases in housing costs create great difficulties for those on fixed incomes. Retired elderly households often have to pay larger and larger proportions of their incomes in rent as housing costs increase over time. Elderly homeowners may be unable to pay for repairs, elderly renters may face the choice between rents so high that almost nothing is left for other expenses or moving. For low-income elderly renters there is often no adequate housing available at lower rents.

A number of different mechanisms can be employed to encourage the development of additional housing resources for the elderly. Among these are:

- The provision of zoning designations that permit the development of senior and senior congregate care housing (I2.7), and the development of second units that could house an elderly family member throughout the City,
- Financial assistance to low-income homeowners for necessary repairs (I2.9),
- Assistance in paying mobile home lease costs for low-income seniors (I2.13), and
- Cooperative development efforts with regional housing agencies to facilitate senior housing developments (I2.26).

All of these possible resources are incorporated into existing or proposed programs in the programs section of the Housing Element. The number which appears in parentheses after each resource refers to a current or proposed implementation program.

(2) Handicapped

(a) Need

The California Department of Rehabilitation Statewide Study of Disabled conducted in 1978 identified 3,650 persons living in San Bernardino who suffered from disabilities

which were likely to affect their housing needs. Such disabilities include blindness, deafness, musculoskeletal conditions, and mental retardation. The City's HAP updates this statistic to 1988, estimating the number of handicapped persons residing in San Bernardino to be 4,736, broken down into the following population groups:

	<u>Total</u>	<u>Low Income Renters Needing Assistance</u>
Elderly Single Individuals	333	19
Non-Elderly Single Individuals	1,953	113
Members of Small Families	2,173	135
Members of Large Families	277	16
Total Handicapped	<u>4,736</u>	<u>283</u>

(b) Potential Solutions and Resources

Low-income tenants with physical disabilities often require both assistance with housing cost and special adaptions of their units. The City requires that all new units constructed with public funds conform to the accessibility requirements of the uniform building code. Some jurisdictions provide public funding to retrofit existing rental or owner units, San Bernardino is not currently proposing such a program.

(3) Large Families

(a) Need

Household size has declined steadily over the past eight years but in the City of San Bernardino, household size was already relatively low in 1980 and Department of Finance (see Table 9) estimates show almost no change between 1980 and 1988. Declines in household size led to down-sizing of units and it is now very difficult for low income large families (five or more persons) to find affordable units with adequate numbers of bedrooms. In fact, a large family may even have a Section 8 certificate but be unable to locate an appropriate unit. For purposes of the Housing Assistance Plan, HUD estimates that about 886 large families in the City require assistance with housing costs.

(b) Potential Solutions and Resources

In the absence of an adequate supply of large family units, assistance with housing costs alone may not be sufficient to meet the needs of low income large families. A new construction program to create additional large family units may be necessary to ensure that these families are adequately housed.

The programs section contains several ongoing or proposed several programs for the rehabilitation and/or new construction of affordable rental housing in San Bernardino

and the policy section requires (Policy 2.6.3) that a portion of units built with City assistance designed with three or more bedrooms to accommodate large households. Examples of programs that could benefit large households are the Rental Rehabilitation Program (I2.10), and the proposed Acquisition/Rehabilitation/Resale Program (I2.22).

Large low-income families may be eligible for Section 8 certificates or vouchers which can be obtained from the Housing Authority of the County of San Bernardino.

(4) Female-Headed Households

(a) Need

Households headed by women are disproportionately poor because women earn only about 65* cents for every dollar of men's wages. In female-headed families with children, child support allowances are often not paid or if the support payments are made, they do not equal the actual costs of child support. Furthermore, women with children may not have adequate job skills and may therefore have to live on the minimal support provided by Aid to Families with Dependent Children.

The 1980 Census shows 4,426 female-headed families with children in San Bernardino but only 3,986 separate households. Apparently 440 female-headed families were living with relatives or friends. Of the 4,426 female-headed families, 2,098 or 47.4 percent had incomes below the 1980 federal poverty line (\$7,412) and another 1,099 or 24.8 percent had incomes between that line and 125 percent of poverty. Altogether in 1980, 3,197 or 72.2 percent of all female-headed families had incomes at or below 125 percent of poverty. That amount in 1980 was \$9,265 or about 66 percent of the 1980 City median income of \$14,009.

It is difficult to estimate the number of female-headed families or households in the City in 1988 because we have estimates for the current number of households, but not for the current number of families. A rough estimate of female-headed households can be made by disregarding income and just comparing the proportion of female-headed households with children in 1980 and 1988. In 1980, there were 3,986 such households in the City representing 9.3 percent of all households. If the proportion of female-headed households with children has not changed then the 1988 number of such households would be 5,074. We can assume that many of these households have very low incomes because women's wages, welfare payments, and child support payments have not changed much over the last eight years, but housing costs have skyrocketed. The City's 1988 Housing Assistance Plan estimates that about 1,546 female headed households in San Bernardino need rental assistance.

* This figure provided by the Women's Bureau of the U.S. Department of Labor for 1988.

(b) Potential Solutions and Resources

Because they are disproportionately poor, female-headed households often need assistance with housing costs. Yet female-headed households are not in themselves an eligibility criterion for any state or federal housing program. Eligibility for these programs is based on income and the presence of minor children. Housing assistance programs serving low-income families include the state's Deferred Payment Rehabilitation Loan Program, the federal Rental Rehab Program, Section 8 Certificates and Vouchers, and Section 8 Moderate Rehab Contracts.

The City does not have its own housing authority, so low-income San Bernardino households must apply to the Housing Authority of the County of San Bernardino for both Section 8 programs and public housing units. If the City contributes to the creation of a nonprofit housing development as proposed under I2.27, then tax-credit investments and other state and federal programs could be used to either create new units or rehab existing units to serve low-income female-headed households.

Other programs that might benefit female-headed households are creation and enforcement of a fair housing ordinance (I2.33) to prohibit discrimination against families with children, the neighborhood housing rehabilitation program (I2.9) and the proposed program to preserve the affordability of buildings with expiring federal subsidies (I2.28).

(5) Homeless

(a) Need

Estimates of the Number of Homeless

It is impossible to accurately estimate the number of homeless in a given area. Service statistics are often not comparable, for example one agency may report the number of beds, another the number of clients per month, a third the number of people sheltered per night. Duplicate counts are inevitable. Furthermore, even survey data on the homeless are unreliable because the homeless are difficult to find in order to count and there is no agreement on the definition of homeless. This problem exists at every level, from the local to the national. In fact, at the national level, there is considerable disagreement between government agencies and homeless advocacy groups on the total number of homeless; the government estimates there are about 300,000 nationally; homeless advocates think that 3,000,000 is a more accurate estimate.

The question of assigning the homeless to a particular area is also a difficult one. Are people from the last place they slept, the last place they paid rent, or the location of the agency where they sought assistance?

There is general agreement, however, on the fact that the number of homeless is increasing and that the greatest increase is among families with children.

The Department of Social Services of the County of San Bernardino conducted a survey of its applicants in April 1987 and found that about 245 homeless households comprising 287 adults and 215 children (a total of 502 individuals) were applying for housing assistance each month. That number was amplified by an additional 110 households who said that they were losing their housing either the same day or within the next one to three days. Eighty-eight or about 36% of the homeless households (40% of the individuals) were from San Bernardino. Fourteen or about 16% of the 88 cases reported prior homelessness. So if DPSAS sees 74 newly homeless San Bernardino households with about 170 individual members each month, then the annual total for 1988 would be about 2,040 homeless individuals.

The population most likely to be clients of DPSS are general relief applicants and families applying for AFDC (Aid to Families with Dependent Children). However, there are many homeless who do not seek assistance from the Department of Social Services. One group unlikely to seek assistance at the DPSS office is the mentally ill.

Dr. Gardener, of the County Department of Mental Health, estimates that the Department's homeless outreach program assists about 2,500 homeless mentally ill County residents each year. According to Dr. Gardener, this is an unduplicated count. While it is not possible to ascertain exactly how many of these should be assigned to the City of San Bernardino, nor to discover whether some of them also receive services from the Department of Social Services, an attempt at an estimate can be made by assuming that San Bernardino's share of the mentally ill homeless is the same as its share of DPSS homeless: 40 percent. The annual number of mentally ill homeless in the City would then be about 1,000 individuals and the total number of homeless would be about 3,040. However, there are undoubtedly a number of homeless who do not seek assistance at all and so the total number of homeless in the City is probably even larger.

However, it is difficult to estimate how many people in the City are homeless at any one time. Some people find permanent housing after just a few days of homelessness, others are homeless for months. The unit of time used in reporting homeless statistics varies widely. Shelters often report people per night. The DPSS study reported clients per month. It seems safe to conclude that there are not 3,040 homeless people every day in San Bernardino, but that it is likely that the number of homeless at any one probably not less than about 250 families and individuals.

Homeless Shelter Beds

There are very few shelter beds in San Bernardino. The Samaritan Shelter has 12 beds and Frazee Community Center has 15 beds. The Mentally Ill Homeless Program which serves the entire County has 46 beds. A number of service agencies provide shelter vouchers. Using transitional shelter funds made available by the McKinney Act, the Salvation Army is constructing a family shelter with 70 beds. This facility is expected to open in December.

Characteristics of the Homeless

The San Bernardino County Homeless Assistance Plan estimated a County-wide homeless population of 2,000 persons in 1987. In 1987 the San Bernardino League of Women Voters conducted a study of homelessness and made the following findings:

- Over half of requests for emergency housing came from families with minor children; one-half the children were under five.
- Approximately one-third of the emergency housing requests come from single parent families, usually a woman.
- Reasons for requesting assistance were usually economic. Over one-half of those requesting homeless assistance were unemployed and had no income; approximately 25 percent received AFDC.

(b) Potential Solutions and Resources

While the most immediate need for the homeless is food and shelter, over the longer term homeless individuals and families need both comprehensive social services and affordable permanent housing to reestablish self-sufficiency and reenter the mainstream.

There are several sub-groups among the homeless populations that require very different kinds of programs although housing and services is a general requirement for all. Those sub-groups are the de-institutionalized mentally ill, single adults and homeless families.

Very specialized community-based residential programs must be developed to serve the homeless mentally ill. San Bernardino County's Department of Social Services provides outreach and emergency shelter for this population; the development of community residential programs depends on the availability of state and federal funding.

Programs to provide housing and services for homeless families are very important to protect the health and welfare of the children in those families. Any increase in housing affordable to very low income families will benefit this group but in addition, homeless families usually need assistance from social service agencies to establish an income, secure job training or placement and learn to resolve the problems that made them homeless in the first place.

Homeless single adults often need very low-cost single units such as those found in residential hotels. There are no programs in the city to develop such units.

With respect to immediate needs for food and shelter: the City has not committed any funds for the development of homeless shelters. The policies and programs sections of the Housing Element identify all areas in the City designated RM or greater and the downtown areas designated CR-2 as areas where homeless shelters may be developed

by conditional use permit (I2.29) and the programs section also proposes that the City's Community Development Department work with regional agencies to coordinate homeless relief programs.

An additional proposed program, I2.31 identifies sources of increased funding that could be used to develop shelters including funds from state Propositions 77 and 84 and federal McKinney Act funds. Other sources of funds for homeless shelter are the Federal Emergency Management Agency (FEMA) and the state's Emergency Shelter Program administered by the Department of Housing and Community Development.

2. Future Housing Needs

a. New Units

In addition to addressing current housing needs, State law requires the City to provide for its "fair share" of projected growth in regional housing need over a five-year period. Each City's share of this regional need is calculated by a regional planning unit, in the case of San Bernardino the regional planning unit is the Southern California Association of Governments (SCAG). The SCAG planning area includes six counties, Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

The housing need for these areas are published in SCAG's June 1988 report, Regional Housing Needs Assessment for Southern California, (RHNA). The report considers market demand for housing, employment opportunities, the availability of suitable sites for public facilities, commuting patterns, and the type and tenure of housing need at both the regional and local level.

According to the RHNA model, San Bernardino's share of regional housing need over the next five years is 8,021 dwelling units to be built between July 1, 1989 and June 30, 1994. The model provides a breakdown by income groups as follows:

Future Housing Needs by Income Group (July 1989-June 1994)

<u>Income Level</u>	<u>Percent of Median Income</u>	<u>Number of Units</u>	<u>Percent</u>
Very Low	50% or less	1,159	14.4%
Low	50% - 80%	1,865	23.3%
Moderate	80% - 120%	1,799	22.4%
High	120% or greater	3,198	39.9%
Total		8,021	

In addition, the State Department of Housing and Community Development has said that 2,853 units distributed in the same pattern should be added between January 1, 1988 and June 10, 1989. This will be extremely difficult because most of this period has

already passed and housing construction in the City was virtually stopped by a court imposed moratorium during part of this period.

The City is required by law to remove constraints to the provision of additional housing units insofar as these constraints are within the City's power to affect. However, the State recognizes that housing construction depends on market forces that, for the most part, are beyond the City's power to affect, and therefore the goal set by the regional planning agency may not be met. In addition, other environmental factors may constrain the City's ability to achieve the housing goal. These constraints are discussed in the following section, E. Constraints on Housing Development.

b. Potential Loss of Affordable Units

The City of San Bernardino has 899 family units and 290 elderly units that were built by private developers using federal mortgage and rent assistance programs. The federal government restricted affordability of this housing for 15 to 20 years depending on the program used, but many of the affordability restrictions are beginning to expire. If market conditions are favorable, building owners may choose to raise rents to market levels, displacing tenants and reducing the City's supply of low cost housing.

The City will need to work with other agencies to develop a strategy to preserve the affordability of these units. Owners are required to give the City six months notice of their intent to convert federally subsidized units to market rents. This should allow time to work with owners, tenants and public agencies to find alternatives that might include a second mortgage guaranteed by local government. The proposed programs section includes a proposed task force to monitor the status of buildings with federal subsidies and develop strategies for preserving their affordability. A list of these buildings may be obtained from the California Coalition for Rural Housing in Sacramento.

E. CONSTRAINTS ON HOUSING DEVELOPMENT

The production and cost of housing in San Bernardino are directly related to the constraints discussed in this section, which can generally be divided into non-governmental, or market constraints and governmental constraints. Market constraints are those inherent in the economy while governmental constraints refer to those presented by legal and regulatory mechanisms induced by the government.

1. Market Constraints

a. Financing Costs

The 1982 California Housing Plan concluded that of all the factors which affect the California housing market, high interest rates are clearly the most debilitating. The Plan states that:

"Financing has significantly increased as a major component of housing cost over the past decade. Developers have had to pay higher interest rates on land, improvements, and construction materials and have had to pass these costs on to homeowners in the form of higher prices. Home purchasers have also had to pay higher mortgage interest rates, which have more than doubled from eight percent in the last 1960s to a high of 18 percent in 1982. High and volatile national inflation rates have necessitated higher mortgage interest rates to attract capital into the housing market. High or variable interest rates are currently necessary for some mortgages to compete with other capital investments"

The problem of high interest rates has diminished somewhat since 1982. However, the financial marketplace is always dynamic, and continues to be erratic in the wake of the stock market crash of October, 1987. Interest rates are again rising from their decade low experienced in the spring of 1987.

b. Availability of Financing

Mortgage financing for the purchase of single-family homes, duplexes and condominiums in the City of San Bernardino is provided by banks, mortgage companies and savings and loan institutions located both in the City and in the surrounding communities of Rialto, Colton, and Fontana. Mortgage rates vary depending on the institution and on whether the loan is fixed or variable.

An informal phone survey conducted on April 26, 1989 found that mortgage lending rates for 30-year fixed mortgages at four different local lending institutions were all different. The rates were: 11%, 11.125%, 11.37% and at one savings and loan the only long-term loan available was a 15-year fixed rate at 11.75%.

Adjustable rate loans were 9.875%, 9.9%, 10% and 10.846%. Variable loan caps ranged from .6 to 5.25 points and most were fixed for six months with adjustments of no more than 1% every six months. Changes in variable rates were based on 11th District cost of funds plus a margin of 2.5 to 2.625 points.

The cost of a construction loan on the same date was 13.5%. This rate was based on prime plus 2% and prime that date was 11.5%.

The interest rates quoted applied to the entire San Bernardino-Riverside County area.

If interest rates continue to rise they could eventually constitute a constraint on housing by making the cost of financing prohibitively expensive. However, the current rates do not constitute such a constraint.

c. Land and Construction Costs

The costs of improved land as a percentage of new home cost rose steadily in California during the 1970s, increasing from 21.0 percent to 27.8 percent in 1980. Land costs include the costs of raw land, site improvements, and all costs associated with obtaining government approvals.

In testing this proportion in the San Bernardino market today, we find that this proportion holds true in 1988. According to a Coldwell Banker commercial division land specialist in Riverside, a typical acre of land in the Verdemont area of San Bernardino zoned for single-family residential, would be priced between \$50,000 and \$60,000.

It is important to note that the price of residentially-zoned raw land is driven by the local housing costs. That is, the price of land does not drive the price of finished dwelling units, but in fact the price of comparable finished units drives the price of land. A typical breakdown of line item costs per unit follows. The example assumes a 40 acre site zoned for single-family residential on 7,200 square foot lots. A more detailed discussion of the City's fee schedule per single-family dwelling unit is included in the Government Constraints section of this report.

Cost Breakout Estimate (August 1988)
New Single-Family Dwelling Unit
City of San Bernardino

<u>Cost Item</u>	<u>Amount</u>	<u>% of Total</u>
Raw land (7,200 s.f.)	\$15,000	16.7%
Fees (incl. off-site & schools) ¹	12,000	13.4
Materials & Labor	48,000	53.3
Marketing	2,000	2.2
Soft Costs (arch. & eng.)	2,000	2.2
"Other"	11,000	12.2
 TOTAL SALES PRICE	 \$90,000	 100.0%

*Source: Coldwell Banker, Riverside

¹ City of San Bernardino Department of Building and Safety

d. Intangible Market Factors

Though the cost of land is commonly considered a constraint to housing development, it is necessary to look beyond land costs to understand the situation in San Bernardino. According to local realtors, it is the City's image within the region that has kept the price of new housing low, which in turn, has kept down the price of land itself.

This image problem does not directly impact the sale of moderately priced housing, because new units are readily absorbed by first time buyers from more expensive areas of the Inland Empire, as well as from Orange and Los Angeles Counties. Instead, it inhibits the production of "move-up" housing because of a perception in the development community that there is not a market for a high-end housing product. This market, according to local realtors, will seek housing product in Redlands, Loma Linda, Lake Arrowhead, and other nearby communities with positive image identification.

2. Governmental Constraints - Local

Local governments affect the supply, distribution, and cost of housing through their actions and policies. This section discusses some of the constraints to housing development imposed by government.

a. Land Use Controls

As indicated in "C. Potential Residential Development," the Draft Land Use Plan permits the construction of an estimated 25,190 new dwelling units on land within the City that is vacant or whose use designation has been changed by the new general plan. The Plan was developed based on the community's desired residential density, capacity of current and projected infrastructure, and severe environmental constraints in some areas of the City caused by earthquake, landslide, fire, and wind dangers. If demand for housing exceeds the maximum number of units allowed by the plan then the plan will become a constraint on housing. However, the environmental and infrastructure difficulties constitute a pragmatic limit to housing development.

b. Infrastructure

Generally, the policies and programs of the Utilities Element of the General Plan provide that the infrastructure supporting new housing development will be expanded concurrent with development¹. The City Water Department indicates that it has sufficient capacity to accommodate the demands attributable to the Plan's housing buildout. It will be necessary to extend water distribution lines, boosters, and water storage facilities for new housing tracts on the periphery of existing development. Costs for such improvements will be borne by the developers. However, the City is unable to mandate that service be extended by individual water purveyors within the City. This could affect the timing and location of development.

¹ Refer to Section 7.0, Utilities.

The Municipal Water Department has initiated a program to expand its wastewater treatment capacity. Present design capacity is 28 mgd of primary and secondary treatment, and three mgd of tertiary treatment. The expansion will add 30 mgd of primary treatment capacity, 15 mgd of secondary treatment capacity, up to 10.5 mgd of tertiary treatment capacity, and 15 mgd of solids handling facilities. The treatment plant capacity will be expanded in either 7.5 mgd or 15 mgd modules depending on growth within the service area. Additionally, the Water Department has entered into a regional project agreement to provide tertiary treatment for all existing capacity.

Disposal of the additional sewage resulting from General Plan residential buildout will require the construction of new and/or upgraded wastewater collection facilities within the City pursuant to the City's Sewer System Master Plan.

Not all of the area designated for new residential is served by sanitary sewers. The California Regional Water Quality Control Board-Santa Ana Region permits the use of septic systems pursuant to City policies. The major septic tank area is located in the northwestern part of the City in the Verdemont area.

In accordance with Chapter 2 of the General Plan, Section 7.0, Utilities, the City will be undertaking a comprehensive survey of the wastewater collection facilities to determine deficiencies in the facilities as well as capacity. Based on this survey, the City will prepare and adopt an improvement program which establishes how and when improvements will take place.

New residential development in the foothill areas may be subject to flood hazards due to slope and canyon runoff. Additional storm drain and flood control facilities (e.g., per San Bernardino County Flood Control District's Comprehensive Storm Drain Plan) will be needed to convey the increased surface runoff, to protect residential properties not currently protected from 100-year storm flows and surrounding properties. Such will be the individual or joint responsibilities of subdivision developers.

All potential residential parcels have easy access to electricity, natural gas, telecommunication, and cable television services.

Areas designated for residential development are served by or can be readily linked with streets and highways. Residential subdivisions will be required to dedicate and develop streets and highways in accordance with the Circulation Plan.

c. Building Codes and Enforcement

San Bernardino's building codes are based upon the State Uniform Building, Plumbing, Mechanical, and Electrical Codes and are considered to be necessary to protect the public's health, safety and welfare. These codes cannot be regarded as a constraint to housing development.

The City's code enforcement process does not unduly penalize older residential structures based on the age factor. Structures are not demolished unless they threaten the public's health, safety and welfare. Property owners are notified and given the opportunity to bring their structures up to code prior to any approved demolitions.

d. Fees, Improvements, and Dedication

Various fees and assessments are charged by the City to cover the costs of processing permits and providing services and facilities, such as utilities, schools, and infrastructure. Almost all of these fees are assessed through a pro-rata share system, based on the magnitude of the project's impact or on the extent of the benefit which will be derived.

In addition to on-site improvements which may be required as part of a project's development, off-site improvements may also be imposed to ensure a development pays its share of the local cost of expansions in services, facilities, and infrastructure. Such improvements may include water, sewer and other utility line extensions, street construction and related projects. Dedications of land or in-lieu fees may also be required of a project for right-of-way, transit facilities, recreational facilities and school sites, consistent with the City's Subdivision Ordinance.

Fees have been set at a level necessary to cover the costs to the City to make appropriate contributions to the community (e.g., traffic mitigation and school fees). However, these fees contribute to the cost of housing, and may constrain the development of lower priced units.

3. Governmental Constraints - State

The major State restriction to publicly-assisted housing is Article 34 of the California Constitution. Article 34 can constrain some affordable housing options by requiring local voter referendum approval of all development, construction, or acquisition of public housing when: (a) units are publicly owned, and (b) units are privately-owned by public financing, and more than 49 percent of the units are reserved for low-income occupancy.

4. Environmental Constraints

SCAG housing projections for the City reflected historic building trends which did not account for constraints imposed by environmental resources and hazards. Foothills along the northern edge of the City, the San Andreas and San Jacinto fault zones, the canyon drainages, Santa Ana River, Cajon Creek, and Lytle Creek, and significant biological habitats will effectively limit the City's housing capacity to approximately 25,000 additional units. Straight-line projection of SCAGs five-year demand of 8,021 units for 20 years would exceed this capacity by approximately 9,000 housing units. If these units were to be accommodated in the City, it, ultimately, would be necessary to expand housing into areas of significant environmental habitat, in particular foothill riparian corridors (as documented in Section 10.0A., Biological Resources), resulting in their ad-

verse disruption. This would necessitate substantial grading and modification of the natural hillside topography. Additional housing would be located in the fault zones, increasing the potential threats to life and property (as documented in Section 12.0, Geologic and Seismic). Further, it would be necessary to intensify existing low density residential neighborhoods. This would result in the loss of existing housing, significant neighborhood groupings, and historic buildings, displace existing homeowners and tenants, and increase traffic congestion and noise.

Assuming the even distribution of the Land Use Plan's housing capacity over 20 years, the City's regional fair share allocation would be approximately 6,298 units.

F. SUMMARY OF ISSUES

The following summarizes the significant housing issues of the City of San Bernardino.

1. Availability of Adequate Sites

- a. As the City's population increases over time, of concern is the ability to provide adequate land for housing development. Ultimately, the City's capacity to provide land for housing will be constrained by the City's environmental resources; including the mountains along the northern edge, the San Andreas and San Jacinto fault systems, floodplain areas of the Santa Ana River, Cajon Creek, Lytle Creek, and other mountain drainages, and significant wildlife and vegetation habitats. It has been concluded by analyses for this General Plan that previous forecasts of regional population growth could not be accommodated within the capacities of these resources.
- b. Currently, there is a deficiency of sites being developed for housing for higher income professionals and executives. These needs are being met by housing developments in adjacent cities.

2. Preservation of Existing Housing

Much of the City's housing in and proximate to the downtown is aging. Some is in a considerable stage of disrepair and dilapidation. Others are being maintained but are subject to considerable economic pressures to replace these with higher density units. Of concern, are the maintenance and preservation of significant older single-family residential neighborhoods and evolution of mixed-density deteriorated neighborhoods for other units.

3. Availability of Affordable Housing

While the City contains a comparatively high percentage of affordable housing units in comparison to other southern California communities, this advantage is expected to disappear over time. Continued development of the Los Angeles metropolitan basin coupled with the City's declining resource of developable land will ultimately constrain the housing market and force up their costs and prices. This concern has been exemplified

by the increasing rates for mobile homes in the City in recent years. Of concern will be the ability to provide housing for an expanding population of low and moderate income households.

4. Special Population Needs

Among the City's housing needs for special populations are the following:

- a. An aging population will require increased housing for senior citizens.
- b. The City's handicapped population will continue to have unique requirements for access and usability of spaces within housing.
- c. The City will need to establish strategies to provide shelters and mitigate problems associated with the expanding homeless population.
- d. The City's single person and unmarried couple population is increasing and, as such, has differing housing requirements than the traditional family.

5. Equal Opportunity

Access to housing opportunities must be provided to all members of the community regardless of age, sex, and race.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for housing in the City of San Bernardino. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 2A Facilitate the development of a variety of types of housing to meet the needs of all income levels in the City of San Bernardino.

Objective

It shall be the objective of the City of San Bernardino to:

- 2.1 Provide adequate sites to accommodate 25,190 new dwelling units.

Policies

It shall be the policy of the City of San Bernardino to:

- 2.1.1 Accommodate the production of new housing units on currently vacant or underutilized land at densities and standards designated in the Land Use Element of the General Plan (I2.1).

- 2.1.2 Accommodate residential components in areas of the Central City designated for mixed commercial use and residential use in accordance with policies in the Land Use Element (I2.1).

Objective

It shall be the objective of the City of San Bernardino to:

- 2.2 Ensure that building inspection is adequate to enforce both codes and development standards during construction process.

Policies

It shall be the policy of the City of San Bernardino to:

- 2.2.1 Develop and maintain sufficient staff to adequately inspect all new construction (I2.18).

Goal

It shall be the goal of the City of San Bernardino to:

- 2B Conserve and improve the condition of the existing affordable housing stock.

Objective

It shall be the objective of the City of San Bernardino to:

- 2.3 Prevent the physical deterioration of housing stock.

Policies

It shall be the policy of the City of San Bernardino to:

- 2.3.1 Assist in the maintenance and rehabilitation of rental units whose owners provide affordable housing to lower income tenants (I2.10).
- 2.3.2 Assist low income home owners to correct code violations and meet the habitability standards of the City Building and Safety Code (I2.9).
- 2.3.3 Assess the feasibility of implementing a program to recycle abandoned houses by making them available to low and moderate income households (I2.22).
- 2.3.4 Require the upkeep, maintenance, and rehabilitation of existing housing stock consistent with the requirements and conditions of the City's building code (I2.23, I2.24, I2.25).

Goal

It shall be the goal of the City of San Bernardino to:

- 2C Assist in the development of adequate housing to meet the needs of low and moderate income households.

Objective

It shall be the objective of the City of San Bernardino to:

- 2.4 Develop new mechanisms to assist the development of units affordable to very low, low and moderate income households.

Policies

It shall be the policy of the City of San Bernardino to:

- 2.4.1 In compliance with State Government Code Section 65915, provide a 25% density bonus or equivalent financial value to any residential developer who agrees to make 25% of units affordable to households at 80% of median income or 10% of units affordable to households at 50% of median income (I2.18).
- 2.4.2 Encourage nonprofit housing development by providing support to nonprofit housing developers in order to use special funding sources such as State and Federal tax credits and property tax exemptions (I2.28, I2.32).
- 2.4.3 Reduce fees and review development standards for infill housing projects (I2.21).

Objective

It shall be the objective of the City of San Bernardino to:

- 2.5 Use available local, state and federal housing funds to the fullest extent possible to meet the housing assistance needs of lower income households.

Policies

It shall be the policy of the City of San Bernardino to:

- 2.5.1 Cooperate with the Housing Authority of the County of San Bernardino to provide rental assistance to eligible tenant households (I2.12, I2.14).
- 2.5.2 Stabilize the cost of leasing mobile home spaces by providing rental assistance to eligible mobile home residents (I2.13).
- 2.5.3 Preserve the affordability of over 1,000 federally subsidized affordable units in the City that are in danger of losing their subsidies (I2.28, I2.31, I2.32).
- 2.5.4 Target eligible and available housing and community development funds for affordable housing to households with greatest need, that is those at 80 percent or less of median income (I2.17, I2.28).

- 2.5.5 Produce an annual housing plan that identifies available revenues and sets production goals for housing affordable to low and moderate income households (I2.31).

Goal

It shall be the goal of the City of San Bernardino to:

- 2D Assist the provision of housing for residents with special needs.

Objective

It shall be the objective of the City of San Bernardino to:

- 2.6 Assist in the provision of housing affordable and accessible to the elderly, disabled, large households, female headed households and the homeless.

Policies

It shall be the policy of the City of San Bernardino to:

- 2.6.1 Allow for the development of senior citizen and senior congregate care housing facilities within the downtown (CR-2), multi-family residential areas (RU-1 and RU-2, RM, RMH, and RH), and commercial office areas (CO-1, and CO-2), provided that they are located in proximity to public transportation, supporting commercial, and health and social services and provide a bonus density of 50 percent in all areas except the downtown, where the permissible density may be increased by 96 units per acre (178 percent) to a maximum of 150 units per acre (I2.1, I2.7 and I2.19).
- 2.6.2 Assist in efforts to increase funding available for the provision of shelter for the homeless (I2.30, I2.31).
- 2.6.3 Require that a portion of units built with City assistance be designed to accommodate low income large households (three or more bedrooms) (I2.27, I2.31, and I2.33).
- 2.6.4 Direct a proportional amount of City assistance to the construction or rehabilitation of housing for low income seniors (I2.26).
- 2.6.5 Ensure handicapped accessibility in publicly assisted housing units in conformity with Title 24 of the uniform building code (I2.15).

- 2.6.6 Consider the needs of female-headed households in developing and implementing housing programs for low and moderate income households (I2.27, I2.31, and I2.33).
- 2.6.7 Permit shelters for the homeless by conditional use permit in all multi-family zones designated RM or greater and downtown in areas designated CR-2 (I2.29).

Goal

It shall be the goal of the City of San Bernardino to:

- 2E Promote equal housing opportunity for all residents of the City of San Bernardino.

Objective

It shall be the objective of the City of San Bernardino to:

- 2.7 Prohibit discrimination in accordance with national fair housing law.

Policy

It shall be the policy of the City of San Bernardino to:

- 2.7.1 All discrimination in housing based on race, ethnicity, national origin, age, religion, sex and family status (children) shall be prohibited by law (I2.33 and I2.34).

HOUSING PROGRAMS

The following indicates the programs which shall be carried out by the City of San Bernardino to implement the goals, objectives, policies, and standards of the Housing Element. These provide for the continuation and enhancement of existing and implementation of new City programs. A five-year schedule of actions and programs is included to implement the policy. Each program is preceded by a capital "I" and number which is referenced by the pertinent policy which it implements in the preceding section.

A. CURRENT HOUSING PROGRAMS

New Construction

I2.1

Provision of Adequate Sites

As described in "C. Potential Residential Development", 8,500 acres have been designated in the Land Use Plan with a wide range of residential classifications and densities. This land would permit the construction of approximately 25,190 additional dwellings.

Responsible Department: Planning

Time Frame: On adoption of the General Plan

Funding: N/A

I2.2

Development Review Committee

Continue weekly meeting of all relevant City departments to review site plans and schematics and to provide developers with coordinated development processing.

Responsible Department: Joint responsibility of all City departments involved in permit processing for development; coordinated by the Planning Department.

Time Frame: Ongoing

Funding: N/A

Related Tasks: N/A

I2.3

Energy and Water Conservation

Continue to require that all new housing construction meet the standards of energy and water conservation prescribed by Title 24.

Responsible Agency: Building and Safety
Time Frame: Ongoing
Funding: N/A
Related Tasks: N/A

I2.4

Infill Housing Program

Continue to provide low-interest land acquisition loans to developers who agree to construct new, affordable single-family homes, or two- to four-unit apartment buildings. The interest on the acquisition loans is deferred until the property is sold.

Responsibility: Community Development Department
Time Frame: Ongoing
Funding: Redevelopment 20 percent set-aside funding allocated annually

I2.5

Mortgage Revenue Bond Program

Continue to issue bonds for both single-family and multi-family construction as necessary. This program is currently constrained by new limitations on bonding authority by the State and by changes in Federal tax laws.

A new single-family bond was issued on September 19, 1988 under a cooperative agreement with the County in the amount of \$10,600,000. This is a private activity bond which provides low-interest single-family mortgages for first-time home buyers.

Responsible Department: Community Development Department.
Time Frame: Ongoing
Funding: contingent upon State bonding cap, allocated annually by State Mortgage Bond and Tax Credit Allocation Committee

I2.6

Provision for Mobile Homes

Residential land use designations permit the development of mobile home subdivisions, as defined in the Land Use Element. Single manufactured units are permitted on permanent foundations on all lots designated for residential use.

Responsible Department: Planning Department.
Time Frame: within one year of Plan adoption
Funding: N/A
Related Tasks: development standards incorporated in Development Code

I2.7

Provision for Special Needs Housing

The CR-2 (located downtown), CO-1, CO-2, CG-2, and the RU-1 and RU-2, RM, RMH and RH designations permit the development of senior citizen and senior congregate care housing.

Responsible Department: Planning

Time Frame: within one year of Plan adoption

Funding: N/A

Related Tasks: development standards incorporated in Development Code

Neighborhood Preservation

I2.8

Retrofit Program

The City will continue to respond to complaints about deteriorated or vacant residential buildings by inspecting the buildings and requiring owners to comply with current codes.

Responsible Department: Department of Building and Safety.

Time Frame: Ongoing

Funding: General Fund through annual budget process

I2.9

Neighborhood Housing Rehabilitation Program

Continue the neighborhood housing rehabilitation program which makes loans at a five percent (5%) interest rate to eligible families of low and moderate income. Loans are made to single-family homeowners to bring their property into conformity with current UBC (Uniform Building Code) standards. Maximum loan amount is \$27,000 per property and payback periods are worked out on a case by case basis.

Responsible Department: Community Development Department.

Time Frame: Ongoing

Funding: CDBG annual grant allocation

I2.10

Rental Rehabilitation Program

Continue the rental rehabilitation program which makes four percent deferred loans to owners of multi-family rental properties for rehabilitation. Program fund must be matched by the owner with a maximum rehab amount of \$7,500 per unit. Section 8 certificates may be provided to eligible tenants of units undergoing

rehab to offset higher rent costs. No certificates are currently available for this program.

Responsible Department: Community Development Department.
Time Frame: Ongoing
Funding: Annual Rental Rehab Grant

Affordable Housing

I2.11

Public Housing

Continue to provide public housing for eligible citizens of San Bernardino.

Responsible Agency: Housing Authority of the County of San Bernardino in coordination with the Community Development Department.

Time Frame: Ongoing
Funding: Section 8 Certificates and Vouchers provided at least annually and occasionally semi-annually

I2.12

Section 8 Certificates

Continue to cooperate with the Housing Authority of the County of San Bernardino in the provision of Federal Section 8 programs for residents of the City.

Responsible Department: Community Development Department and the County Housing Authority.

Time Frame: Ongoing

I2.13

Mobile Home Rental Assistance Program

The City will provide financial assistance in paying mobile home space lease costs to eligible low income seniors, subject to the availability of housing and community development funds.

Responsible Department: Community Development Department.
Time Frame: Ongoing
Funding: Program Income derived from Rental Rehab Loan Program

I2.14

Voucher Program

Continue to cooperate with the County Housing Authority in the provision of Federal housing vouchers to eligible San Bernardino renter households.

Responsible Department: Community Development Department
Time Frame: Ongoing

Special Needs Housing

I2.15

Handicapped Access

Continue to require that residential developments serving low income or elderly households conform with the handicapped access requirements of Title 24 of the Uniform Building Code.

Responsible Department: Building and Safety.
Time Frame: Ongoing
Funding: N/A

Address and Remove Government Constraints

I2.16

Joint Venture for Affordable Housing

The City has entered into an agreement with the U.S. Department of Housing and Urban Development (HUD) to participate in a demonstration program that seeks to reduce the cost of housing through the reduction of fees and assessment, the granting of density bonuses and other local regulatory processes and to share the results of these activities with other jurisdictions participating in the demonstration.

Responsible Department: Community Development Department.
Time Frame: Construction scheduled for October, 1989
Funding: Private, CDBG, and 20% Set-Aside

Redevelopment Activities

I2.17

Redevelopment Agency Participation (Housing Activities)

Continue to facilitate the revitalization/development of deteriorated neighborhoods through development entitlements and other pre-development activities.

Responsible Department: Redevelopment Agency
Timeframe: Ongoing
Funding: Tax Increment Financing

B. PROPOSED HOUSING PROGRAMS AND FUNDING SOURCES

New Construction

I2.18 Building and Safety Inspection

Evaluate the capacity of City staff to adequately inspect new construction for conformity with Uniform Building Code.

Responsible Department: Office of City Administrator-Development Services

Time Frame: Annually through budget process

Funding: General Fund

I2.19 Density Bonus

State Government Code Section 65915 requires local governments to grant a density bonus of at least 25 percent, or a financially equivalent incentive, to developers who agree to make 25 percent of units in a new housing development affordable to low and moderate income households or 10 percent affordable to low income households (households at 50% or less of County median income). The Planning Department will study the issue of an in-lieu fee and develop standards for such a fee if judged appropriate.

In addition, the City shall incorporate in the Development Code provisions which permit the development of senior citizen and senior congregate care units up to fifty (50) percent above the permissible density in all multi-family designated areas and CG-2, up to 150 units per acre in the downtown area and 54 units per acre in commercial-office designated areas.

Responsible Department: Planning Department.

Time Frame: within one year of Plan adoption

Funding: N/A

Related Tasks: incorporation of development standards in Development Code.

I2.20

Coordination of Notification and Monitoring of Density Bonus Program

The Planning Department will take responsibility for developing a procedure to notify the Community Development Department that a density bonus has been granted. The City shall be responsible for designing a program to monitor density bonus projects to ensure that the required number of units are made available to low and moderate income households.

Responsible Department: Planning and Community Departments.

Time Frame: Ongoing

Funding: N/A

I2.21

Task Force on Fees and Development Standards

Within six months of the adoption of this section, a task force consisting of relevant City administrators and building industry representatives shall be convened to make recommendations to the Mayor and Common Council regarding the reduction and or waiver of City imposed building fees and development standards as they relate to infill housing in older, established neighborhoods.

Responsible Department: Community Development

Time Frame: establishment of task force within six months of Plan adoption with recommendations to MCC within one year of adoption

Funding: 1.5 staff persons through General Fund budget process

Related Tasks: revisions to Development Code.

Neighborhood Preservation

I2.22

Acquisition/Rehabilitation/Resale Program

This is a proposed new program currently under discussion with HUD and the Veteran's Administration. Under the proposed program the City would contract with nonprofit and/or for-profit developers and assist them in acquiring and rehabilitating vacant HUD and VA repossessed properties in designated neighborhoods on the west side of the City.

These houses would then be resold at affordable prices to first-time home buyer families. The program would use redevelopment set-aside funds for acquisition and Neighborhood Rehabilitation Funds for rehab.

The program meets two goals; it makes affordable housing available to first-time home buyers and reduces neighborhood blight by improving and recycling vacant properties.

Responsible Department: Community Development Department

Time Frame: ongoing

Funding: CDBG for rehab, probably in the form of a silent second deed of trust

I2.23

Pre-sale Code Enforcement

This proposed program would require code inspection and violation abatement prior to sale of a dwelling unit or structure.

Responsible Department: Building and Safety.

Time Frame: Ongoing

I2.24

Rental Housing Code Enforcement

Require the inspection of rental properties by the Code Enforcement Division of the Building and Safety Department on a systematic basis or as properties are vacated and prior to occupancy by new tenants.

Responsible Department: Building and Safety

Time Frame: ongoing

Funding: inspection fees charged to property owners

I2.25

"Truth in Sale" Ordinance

This program proposes a "Truth in Sale" ordinance that would require information concerning code violations, zoning status, and property taxes to be provided to the buyer.

Responsible Department: Building and Safety.

Time Frame: within one year of Plan adoption

Funding: N/A

Affordable Housing (and Special needs Housing)

I2.26

Senior Housing Programs

The City will work to develop proposals to facilitate housing for seniors in cooperation with the County Housing Authority and other regional housing agencies.

Responsible Department: Community Development Department.
Time Frame: Ongoing
Funding: N/A

I2.27

Nonprofit Housing Development Corporations

The City shall provide financial and technical assistance to not-for-profit housing development corporations to assist in the development of housing for low and moderate income households, contingent upon the availability of funding and other resources.

Responsible Department: Community Development Department.
Time Frame: Ongoing
Funding: State and Federal tax credits and property tax exemptions (pursuant to Filante Bill).

I2.28

Task Force to Preserve Affordability of Buildings with Expiring Federal Subsidies

There are over 1,000 federally subsidized units in the City with affordability restrictions that are due to expire over the next five years. If market conditions are favorable, the owners of these units may decide to convert them to market rates. The loss of over 1,000 units affordable to low income families and seniors would have a profound impact on the provision of affordable housing in San Bernardino. The City shall therefore establish a task force to monitor the situation and recommend solutions and funding sources.

Responsible Department: Community Development Department.
Time Frame: Task Force appointment within one year of Plan adoption.

Remove Government Constraints (and Special Needs Housing)

I2.29

Emergency Shelter

State housing law requires that the City either identify specific sites for the development of affordable housing identify a zoning designation that permits the development of such shelters. The City will create and enact a zoning designation that permits the development of shelters for the homeless in all multi-family zones designated RM or greater and downtown in areas designated CR-2. The City will also clearly set forth the process by which developers of emergency shelters can obtain the necessary permits.

Responsible Department: Planning Department.
Time Frame: one year of Plan adoption
Funding: General Fund
Related Tasks: incorporation of standards in Development Code.

I2.30

Coordination of Homeless Programs

Work with regional agencies to coordinate homeless relief programs by tracking the estimates of homeless and provision of emergency shelters.

Responsible Department: Community Development Department.
Time Frame: Ongoing, including an annual report on status to MCC

Increase Funding for Affordable Housing

I2.31

The City will make every effort to increase the funds available for housing low and moderate income households in San Bernardino. Sources of additional housing funds include:

Propositions 77 and 84: These recently passed revenue bonds provide nearly \$500 million statewide. About \$80 million is set aside for upgrading seismically unsafe buildings and the remainder is for emergency and permanent housing for low income families and individuals.

Filante: This bill grants a property tax exemption to housing owned by nonprofit organizations.

State and Federal Tax Credits: These tax credits are available to nonprofit housing developers for both new and rehabilitated units.

McKinney Act: This federal program provides funds for emergency shelter and transitional housing. One such project, the Salvation Army's seventy-bed family shelter, has already been developed in San Bernardino using these funds.

Time Frame: Ongoing

Funding: State and Federal funds, as available

I2.32

Local Revenue Sources

The City will study alternative local sources of revenues to support affordable housing. One of the chief alternatives to be studied shall be a developer fee for commercial and/or residential development.

Another local revenue source is an increase in City's share of the document transfer tax on real estate. Applicability to AB1600 will be considered to ensure that any recommended fee be legally defensible.

Responsible Department: Planning Department and Community Development Department

Time Frame: recommendations within 12 months of Plan adoption

Promote Equal Housing Opportunity

I2.33

Fair Housing Ordinance

Enact a fair housing ordinance that prohibits discrimination in housing based on age, race, sex, national origins, religion or family status.

Responsible Department: City Attorney

Time Frame: within six months of Plan adoption for MCC review.

I2.34

Analysis of Impediments to Equal Housing Opportunity

Conduct an analysis of local housing marketing to determine any and all impediments to equal housing opportunities. Future fair housing activities will be targeted toward the findings, conclusions and recommendations of this analysis.

Responsible Department: Community Development

Timeframe: July 1, 1989 - June 30, 1990

Funding: Community Development Block Grants

C. FIVE-YEAR HOUSING GOALS

The City believes that over the next five years it should produce approximately 6,298 housing units to contribute to its share of regional housing needs. These units are distributed as follows based on the percentages established by the SCAG RHNA. The rationale for the production of these units is more fully addressed in Section E. Constraints on Housing Development.

<u>Income Group</u>	<u>Percent Of Median</u>	<u>Number Of Units</u>	<u>Percent of Units</u>
Very Low	50% or less	907	14.4%
Low	50% to 80%	1,467	23.3%
Moderate	80% to 120%	1,411	22.4%
Upper	Over 120^%	2,513	39.9%
Total		6,298	100.0%

Housing costs have increased dramatically over the past few years and it is no longer possible for the market to produce housing affordable to low and very low income households without some form of government assistance. Between 1965 and 1980 the federal government assumed major responsibility for funding housing programs for its lower income citizens. However, since 1980, federal support for housing has decreased over 70 percent and local governments all over the country have had to identify new, local sources of support for housing. The City of San Bernardino has a number of programs serving its low and moderate income residents and over the next five years will assist in the provision of approximately 474 units or about 13% of all low and moderate income units. Table 14 shows the projected distribution of City-assisted units by tenure.

In order to achieve these objectives the City will continue or initiate the programs described in Sections A and B of this chapter. While the City recognizes the need for low and moderate income housing within the City, it also recognizes that in the absence of increased state and federal funding, it may be difficult to reach the numerical objectives set for the production of housing affordable to very low and low income households.

TABLE 14

City of San Bernardino
Five-Year Housing Objectives by Tenure*

<u>Income Category</u>	<u>Total of Additional Units</u>	<u>City Assisted Owner Housing</u>		<u>City Assisted Renter Housing</u>		<u>Total</u>	<u>Percent</u>
		<u>New</u>	<u>Rehab</u>	<u>New</u>	<u>Rehab</u>		
Low/Moderate	3,785	75	202	62	135	474	13%
Upper	2,513	-	-	-	-	-	-

* Extrapolated from City of San Bernardino Three-Year Housing Assistance Plan, 1988:page 2, Annual Goals Counted Toward Three-Year Goals.

3.0 HISTORICAL AND ARCHAEOLOGICAL RESOURCES

INTRODUCTION

The purpose of incorporating an Historic Preservation Element into the General Plan is to provide the basis for enabling legislation that will allow the City of San Bernardino to effectively preserve, enhance and maintain sites and structures which have been deemed architecturally, historically, archaeologically and/or culturally significant. This is critically important in San Bernardino which contains many older structures and historic sites which may be threatened with demolition or removal as the rapid pace of development continues.

AUTHORIZATION AND SCOPE

The authorization to prepare an Historical Preservation Element and the scope of such an element are contained in Section 65303 of the Government Code which permits a General Plan to include:

Any other elements or address any other subjects which, in the judgment of the legislative body, relate to the physical development of the county or city.

There are many benefits associated with including historic preservation as an integral element of the City's General Plan; the primary benefits include social, cultural and economic.

The social benefits of historic preservation come in the form of increased community pride in the retention and rehabilitation of the City's early built environment. Enthusiasm and popular interest in the community's past can create a recognizable identity for San Bernardino and a source of community pride, which is passed from generation to generation.

An effective historic preservation program can contribute to a culturally richer community. Through the preservation, use and reuse of culturally significant buildings, sites, and districts, built by earlier generations, and from a diverse ethnic background, area residents will be able to participate in the perpetuation and enrichment of the City's cultural heritage and will develop a greater appreciation for the diversity of culture that typifies present-day San Bernardino.

Preservation activities have enhanced property values and increased economic and financial benefits in many cities. The designation of an area as an historic district can have the effect of stimulating economic growth in a previously economically depressed area. Within the older commercial cores of a number of cities, communities have turned to historic preservation, adaptive reuse, and compatible design controls to strengthen the City's economy and enhance the City's attraction to residents, tourists and visitors. These areas have the potential of attracting many visitors from the local, regional and

national level. Some historic districts such as Old Town in San Diego attract well over 1,000,000 visitors per year; others, such as Old Pasadena and Jackson Square in San Francisco, have dramatically revived depressed, rundown sections of the two cities, sparking related investments in new construction and infill in the surrounding areas.

A general increase in property values may result in higher property values and tax revenues are likely to increase. Also, tax revenues collected from the sale of goods and services in these areas can be tremendous. Other economic benefits come from the construction and related work involved in rehabilitating and adapting historic structures and sites. Rehabilitation is more labor intensive than new construction, but requires fewer materials. Adapting historic structures to new uses, however, often costs about one-third less than new construction. The type of skills needed for the majority of the service-oriented jobs provided by tourist-oriented commercial activity broadens employment opportunities for students, seniors and others seeking fulltime, part-time, seasonal and/or alternative employment.

Often it has been said that a city cannot afford not to have an historic preservation program. This arises from the fact that it would be prohibitively expensive to duplicate the fine craftsmanship and design of the original architecture and building detailing found in many historic structures. In an era of diminishing resources, rising building costs and expensive building materials, the rehabilitation and restoration of older structures becomes an attractive alternative to demolition and new construction. Once abundant and inexpensive, the materials used in some older structures are now rare and expensive.

A Historical and Archaeological Resources Element lays the groundwork for a comprehensive preservation ordinance. This ordinance, if well designed, will ensure the City's commitment to an enforceable preservation program. A Historical and Archaeological Resources Element can help insulate a city from legal charges that it has acted arbitrarily or unreasonably in placing restrictions on a particular district or piece of property for historic preservation purposes. It assures that the city will have the authority to guide future planning decisions in a manner that is compatible with the goal of preserving valued historic, architectural, and cultural resources.

BACKGROUND DATA AND ANALYSES

A. HISTORICAL BACKGROUND

The first inhabitants of San Bernardino valley were Native Americans who may have settled along the Santa Ana River as early as 8000 BC. The decline of local Native American culture began in the late-eighteenth century with the arrival of Spanish military and missionary parties. Natives living in the valley when the Spanish arrived were Uto-Aztecán, Takic speakers, possibly including groups known as Serrano, Luiseno and Gabrielino. Later, a Mountain Cahuilla group, under the leadership of Juan Antonio, was brought to the valley by the local Spanish family to work their rancho. The only local Native American community in existence at present is the San

Manuel Indian Reservation on the northern city boundary (Lerch and Haenszel 1981; Moratto 1984).

Prehistoric sites within the planning area represent at least three periods of Indian occupation: The Milling Stone, Late Prehistoric and Protohistoric periods, dating from ca. 3000 BC to the mid-nineteenth century AD. These prehistoric sites include food procurement sites, specialized lithic technology sites and seasonal habitation sites. An inventory of these sites is provided in Table 15 and depicted in Figure 8.

The first documented Spanish settlement within San Bernardino valley was established in 1810. The site of this settlement was dedicated by Fray Francisco Dumetz as the Rancho de San Bernardino of Mission San Gabriel. Its location is regarded by some historians to have been near the confluence of Lytle Creek, Warm Creek, and the Santa Ana River, a location within the present-day City of San Bernardino. In 1812, after a severe earthquake, a new hot mud spring appeared near the settlement, at what later became known as De Sienna hot springs. This event created apprehension among the non-Christian Native population. They attacked the settlement, killed Christian neophytes and destroyed buildings. The Spanish padres abandoned their capilla or chapel, and returned to Mission San Gabriel. For the next six years, only Native settlements appear to have existed within the valley.

In 1819, in response to raids from hostile Natives, local Indians requested the return of Spanish padres. A second Rancho de San Bernardino was established at a site known as the Guachama rancheria, located a few miles east of the possible original settlement in what is now the City of Loma Linda. Two years later, in 1821, a branch of Mission San Gabriel, known as the San Bernardino Asistencia, was established one and a half miles to the east of the Guachama rancheria within the present boundaries of the City of Redlands. From this branch mission, the development of agriculture within the valley began. Water was transported via a ten-mile ditch, known as the Zanja, from Mill Creek to irrigate olive trees and vineyards. With the transition of political power from Spanish authority to Mexican control in 1822, attitudes toward land ownership and use underwent a major shift. From the period of initial settlement in 1810 to 1839, sole control over lands in the valley was in the hands of the church.

TABLE 15

Inventory of Known and Pending Archaeological Sites

<u>USGS Map</u>	<u>Site ID Number</u>	
Devore 7.5	<u>Prehistoric</u> CA-SBr-1397 CA-SBr-5429	Native American food processing site. Native American food processing site.
	<u>Historic</u> *PSBR-4-H *PSBR-5-H *P1072-12-H	Sawpit Canyon road site. Cajon Canyon road site. Miguel Blanco house site
San Bernardino North 7.5	<u>Prehistoric</u> CA-SBr-2268/H *PSBR-14	Native American habitation site. Native American habitation site.
	<u>Historic</u> CA-SBr-2268/H *P1071-1-H *P1071-3-H *P1071-10-H	Arrowhead Springs hotel site. Camp Ono site San Bernardino to Bear Valley railroad grade site Fairview school site.
Harrison Mountain 7.5	<u>Prehistoric</u> CA-SBr-2282/H CA-SBr-2318	Native American habitation site and cemetery. Native American lithic reduction and food processing.
	<u>Historic</u> CA-SBr-1396-H *PSBR-11-H	Jeffrey Ranch site. North Fork canal/aqueduct.
San Bernardino South 7.5	<u>Prehistoric</u> CA-SBr-1419 CA-SBr-2794 CA-SBr-2999/H CA-SBr-3001 *PSBR-14 *P1074-29/H	Native American habitation site (destroyed) Native American food processing site. Native American lithic reduction and food processing site. Native American burials (destroyed). Native American habitats site. Native American habitation site.
	<u>Historic</u> CA-SBr-2999/H CA-SBr-5554-H	Fort Benson and Hunt ranch site. Martin Adobe site.
	<u>California Historic Landmarks</u> #44 #617	Mormon Stockade Site Fort Benson Site

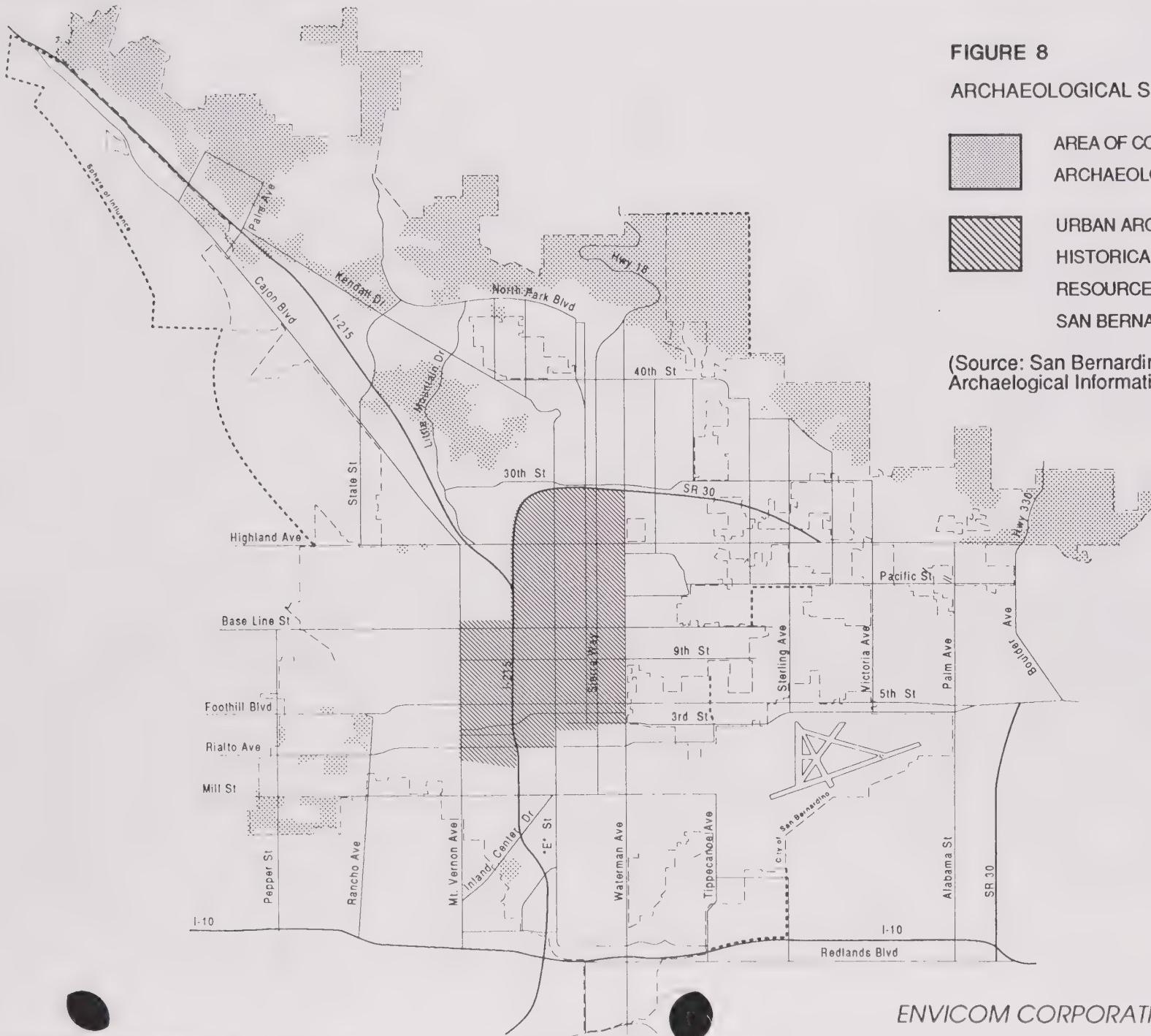
* Pending archaeological site.

FIGURE 8
ARCHAEOLOGICAL SENSITIVITIES

 AREA OF CONCERN FOR
ARCHAEOLOGICAL RESOURCES

 URBAN ARCHAEOLOGICAL DISTRICT -
HISTORICAL ARCHAEOLOGICAL
RESOURCES OF 19TH CENTURY
SAN BERNARDINO

(Source: San Bernardino County
Archaeological Information Center)



In 1839, Don Antonio Mario Lugo petitioned Perfect Pena of Los Angeles to request Governor Juan Bautista Alvarado for approval of an application to colonize 150,000 acres between present-day San Bernardino and Yucaipa. The grant was approved, and the property was named the Rancho San Bernardino. In 1840, the Lugo family began developing their new land grant, relocating approximately 4,000 cattle and horses from their San Antonio Rancho in Los Angeles. They erected an adobe house at Agua Caliente, near the present-day San Bernardino County Courthouse in downtown San Bernardino; and Vicente Lugo built a second home near the site of the De Sienna hot springs.

In 1843, Governor Manual Micheltorena was petitioned to grant approximately 30,000 acres to Miguel Blanco. The new land grant was approved and named Rancho Muscupiabe, occupying most of the northwestern portion of the present-day City of San Bernardino. Blanco built a "fortress-like adobe" near the mouth of Cajon canyon. Nine months after moving to this new home, an attack forced him to abandon the rancho.

Fortunately for the valley, eastern emigrants traveling overland through the Mojave desert first glimpsed the western plains of southern California as they emerged from Cajon Canyon. Some were greeted by the Lugo's at the San Bernardino Rancho, and some undoubtedly returned to establish permanent residences. The gold rush also provided the ranchos with opportunities to provision emigrants and northern settlements with livestock and other agricultural commodities. The San Bernardino Rancho prospered, and in 1851 the western portion, including some 37,700 acres, was sold to a group of 500 newly arrived Mormon immigrants.

Near the site of the Lugo family adobe, the Mormons erected a stockaded settlement (Fort San Bernardino) with over 50 structures (around the present-day site of the San Bernardino County Courthouse). In 1852, Mormon brothers Amasa Lyman and Charles Rich staked the center of a new urban settlement which was to become the City of San Bernardino.

The townsite of San Bernardino was surveyed by Henry G. Sherwood in 1853, the same engineer who laid out Salt Lake City. The City was one mile square, with a grid of wide streets forming the boundaries of eight-acre blocks. One block was designated as the Mormon Plaza, now known as Pioneer Park. The east-west streets were numbered one to ten from south to north, as they remain designated today, while the north-south streets received names, all of which have been subsequently changed.

In 1854, San Bernardino became incorporated as a city, one year after the County of San Bernardino was split from the Counties of San Diego and Los Angeles. Its population consisted of approximately 1,200 inhabitants, 75 percent of whom were Mormon. Over the next few years, the character of the City reflected the values of its chief inhabitants; but in 1857, Mormons from across the country were recalled to Utah. Approximately 75 percent of the Mormons in San Bernardino returned to Utah, with approximately 30-50 families deciding to remain. Unsettled and unclaimed property of approximately 8,000 acres was purchased by William Conn and Associates who subdivided the land and

sold it to the settlers. The agricultural character of the valley, established during the Mexican and Mormon periods, continued to dominate the local economy. However, with continued development of the timber and mineral resources of the mountains and desert, the character of the City slowly emerged as a regional commercial center.

With the completion of rail connections between the desert and Los Angeles in 1887 by the Santa Fe Railroad, San Bernardino soon developed into a railhead boom town. Commercial enterprises dominated the urban landscape, with emphasis upon service and retail establishment, while industrial enterprises supported agricultural development.

With the center of the City established near the location of the Lugo's Agua Caliente rancho adobe, the commercial core of the City of San Bernardino grew slowly to the east, west, and north. Downtown businesses included hotels, restaurants, saloons, retail shops, and small service-oriented businesses. Property to the south, closer to the Santa Ana River, appears to have remained primarily agricultural. To the west of the core, transportation related industries developed around the Santa Fe rail yard. To the north and east of the core, relatively small agricultural farms and ranches dominated the landscape. Service industries slowly intermingled with the eastern farms, while farms to the north developed into the primary residential district of the City.

Residential development during the late nineteenth century spread from the downtown commercial district northward along E Street toward the Shandin Hills. Property roughly bounded by 5th, 13th, "D", and "H" Streets became the City's urban Victorian residential district. Further northward, isolated Victorian residences also were built, primarily as rural or farm houses. These Victorian residential districts, attached to a commercial core and agricultural enterprises, reflect a typical American urban-suburban city growth pattern.

The City's growth pattern also favored the development of small ethnic communities within the larger urban center. As the Lugo family imported Native labor to work their rancho, the railroads imported Asians, and agricultural enterprises supported the use of seasonal labor consisting of such ethnic groups as Hispanics, Afro-Americans, and Asians. In the City of San Bernardino, an Asian-American community was established just south of the downtown commercial district (Thompson 1978); Hispanics (possibly a mixture of Native American and Mexicans) settled to the south and west of the City; while Afro-Americans, initially residing throughout the City, eventually established a community on the west side of the City (Skinner 1983).

Urban land use expansion continued outward from the downtown core, reflecting the basic patterns established in the late nineteenth century. Residential growth in the twentieth century continued to expand into the rural agricultural zone, with redevelopment of earlier residential areas also occurring. Commercial establishments continually replaced one another, slowly expanding into residential districts. Service and light manufacturing industries continued an association with the transportation corridors, relying initially upon easy access to rail and wagon roads, and later upon

paved highways. With the arrival of air transportation, commercial fields were established in rural agricultural areas, and combined with the industrial pattern for easy access to rail lines, set the stage for the establishment of local military facilities during World War II.

B. ARCHITECTURAL RESOURCES

The San Bernardino planning area contains a considerable variety of historic residential architecture. The following examples represent the most predominant styles which remain intact today. These examples serve as a background to understanding the significant historic architecture of the region, and the later discussion on its preservation.

1. California Bungalow, (Circa 1890-1940) (see Figure 9)

One of the most common architectural styles to be found in San Bernardino and in other California cities is the bungalow. It is characteristically a one-story structure with a broad, gently-pitched gabled roof. The roof overhangs a front porch which is often supported by battered piers. Natural materials are commonly used in its construction, such as wood siding and foundations made of brick or stone. Beams and other structural members are often exposed. Dormer or "eyebrow" windows may punctuate the roof line. Some two-story houses--termed "bungahighs"--can be found in San Bernardino which demonstrate bungalow characteristics.

The California Bungalow shares small size and low-pitched roof with the Craftsman Bungalow. The feature unique to the California Bungalow is a pair of elephantine columns which support the small gable over the front porch. On their own, these heavy-looking posts with broad base and tapered top seem too short and awkward, but in place they are clearly in proportion to the overall bungalow design.

2. Craftsman Bungalow (Circa 1905-1925) (see Figure 9)

The Craftsman Bungalow House is typically a single-story house with one or more broadly pitched, overhanging gables. This type of house is recognized by the deliberate use of natural materials, its emphasis on structural form, and a casual relationship with the out-of-doors. The Craftsman Bungalow has exposed beams beneath overhanging eaves, projecting brackets, and a propensity toward Swiss or Japanese motifs. Brown shingles persist, though sometimes wood clapboard siding is used instead.

Two large pillars usually support the front porch gable. Made of wood or stone, the columns rest on pedestals which rise up out of the foundation and serve as endposts for the porch railings as well.

Ideally, the foundation of the Craftsman Bungalow would be constructed of local stone so the house would seem to emerge from the earth.

HISTORIC ARCHITECTURAL STYLES: A

FIGURE 9



California Bungalow
(circa 1890 - 1940)



Craftsman Bungalow
(circa 1905 - 1925)



Mission Style - Mediterranean
(circa 1890 - 1920)

3. Mission Style - Mediterranean (Circa 1890-1920) (see Figure 9)

The Mission (Mediterranean) Style house is characterized by low-pitched red tile roofs and plain plastered or stucco walls. Not all Mission Style houses, however, have red tile roofs; many of the smaller houses of this style are covered by a flat tar and gravel roof concealed behind a parapet or the front porch gable. Typically, it is only the porch, or parapet of these smaller homes which is covered in red tile, the suggestion enough to set the Mediterranean mood for the entire house.

Ornamentation and detailing on the Mission Style house is restrained. Parapets, towers and curvilinear gables, characteristic of the Spanish missions, are common features of this style. Wood or wrought iron is used for second story balcony railing on larger homes, or as window grilles on cottages.

4. Spanish Colonial Revival (Circa 1915-1941) (see Figure 10)

While incorporating many of the elements of the Mission Style - low pitched, red tile roofs, towers, parapets, and white stucco or plaster walls - the Spanish Colonial Revival Style is much more decorative and lacks the simplicity or form of the Mission Style. Arches are supported by piers or columns, and walls are richly ornamented with terra cotta or cast concrete. Common features include balconies, arcades and windows of various sizes, often ornamented with wooden or wrought iron railings and grilles. Homes of this style were related to the outdoors through use of French doors, terraces, and pergolas.

The Spanish Revival has persisted in San Bernardino since its inception in the early 1900s. It also had a new spurt of popularity in the 1930s and early 1940s. Many of the City's most outstanding churches of this era were designed in this architectural style.

5. Colonial Revival (Circa 1890-1915) (see Figure 10)

Colonial Revival represents an interest in simpler, more classic lines, but in its later years also represented a turning away from the excesses of the Victorian styles. Colonial detailing include pediments, large columns, corner pilasters, classical doorways and shuttered windows. This style is characterized by a symmetrical, balanced arrangement of windows and doors. Large entry porches are dominated by massive columns. Exteriors are most often composed of clapboard or brick, covered by a gabled roof. California's Spanish and Mexican heritage is reflected in the Mission and Spanish Colonial styles.

The Colonial Revival expressed a national enthusiasm with our colonial past, celebrated in the 1876 Centennial Exposition in Philadelphia, reaching the West Coast twenty years later. Back was the formality and classical detailing of the 1870s popular prior to the Victorian era. Square plans, boxy massing, rectangular walls with symmetrically placed windows, and hipped brackets were trademarks of this architectural style.



Spanish Colonial Revival
(circa 1915 - 1941)



Colonial Revival
(circa 1890 - 1915)



Victorian
(circa 1837 - 1901)

6. Victorian (Circa 1837-1901) (see Figure 10)

The Queen Anne, Stick and Eastlake style were variations on the Victorian theme, and were often used in combination. The Eastlake style took its name from an English interior designer, and is furniture-like in its detailing. Decorative ornamentation adorns porches, windows, and roof eaves, and include large carved brackets, knobs, carved panels, spindles and lattice work, and perforated gables and pediments. These light, fragile elements contrast with heavy massive railing, balustrades, and porch posts to produce a vivid three dimensional quality.

The most characteristic feature of the Queen Anne style is the presence of a corner tower or turret, cylindrical or polygonal in shape, commonly called a "witch's cap." Several different colors and textures of materials are often used together on a building exterior, such as brick, shingles and clapboard. Bay windows are a common feature, as are leaded and stained glass windows. Queen Anne structures are symmetrical in form, and the combination of gabled roofs, high chimneys and turrets produces a picturesque silhouette.

C. HISTORIC PRESERVATION SURVEY

The history of San Bernardino is "sporadically" represented in its buildings and structures. Although recycling and redevelopment of historic areas has resulted in the loss of much of the area's rich history, concentrated areas of historic structures exist throughout the City. A general reconnaissance survey of the planning area was conducted to evaluate residential and commercial districts, of potential historic district merit.

1. Definitions

Definitions of terminology used in this discussion are as follows:

- a. "Cultural or Historic Resource" denotes buildings, structures, sites, places, areas, or other objects of scientific, cultural, aesthetic, educational, architectural, or historical significance to the City.
- b. "Architectural Integrity" denotes the retention of exterior architectural features which were part of the original design of the resource.
- c. "Alteration" is the change of exterior architectural features of the resource's original design which significantly alters its appearance.
- d. "National Register of Historic Places" is the official list of the nation's cultural resources worthy of preservation. Listing on the National Register provides substantial tax benefits to structures which undergo rehabilitation and/or which grant facade easements. The Register does not provide protection against building demolition, however, only local ordinances can serve this purpose.

- e. "Historic District" denotes an area, whether one block or twenty blocks, comprised of a collection of buildings with similar history and architectural identity. Such an historic district can be locally designated as an overlay zone for which special design controls are defined to maintain the historic character of the area, or nationally designated on the National Register of Historic Places. While national designation provides the same financial incentives offered to individual structures, guidelines for district listing are far more stringent than those for national designation.
- f. "Pre-1941 Buildings" is the general criterion used to define historic structures in the survey of the planning area. Fifty years of age is also the criterion for eligibility to qualify for the National Register of Historic Places.
- g. "Neighborhood" consists of one or more blocks of homes or commercial buildings, both sides of the street, which are of compatible architecture, where more than 75 percent of the property retains its original architectural design.

2. Method of Survey and Criteria

The intent of the historic survey was to identify general concentrations of historic structures, defined as buildings constructed prior to 1941, which have maintained their architectural integrity. A more detailed building-specific survey could then be conducted of these areas to determine their eligibility for historic district merit (State monies are currently available for historic surveying).

A general reconnaissance survey was conducted of the area defined as pre-1941 San Bernardino. Subareas of suspected concentrations of historic buildings were chosen for more detailed windshield survey. These subareas were selected based on discussions with persons with local historical knowledge, including staff from the Mayor's Office of Cultural and International Affairs, San Bernardino County's Archaeological/Historical Information Center, the California (History) Room at the Feldheim Library, and the City's Planning Department. In addition, a local historian accompanied the consultant on some of the surveying.

3. Survey Findings

Concentrations of pre-1941 homes were found to exist throughout the surveyed area. The overall quality of these historic neighborhoods varies widely, some well maintained with a high level of architectural integrity, others in a state of deterioration and/or severely altered architectural style. In a general sense, maintenance and care levels vary with the socioeconomic group occupying the neighborhood. Another determinant factor of neighborhood quality is whether the property is owned by the occupant or by an absentee landlord. Table 16 indicates potentially significant historic structures.

TABLE 16

Potentially Significant Historic Structures

1. Cox-Bradley Adobe, 527 Mountain View

The last remaining adobe house in San Bernardino, as adobe construction discontinued after the 1862 flood. Possibly built by pioneer Fabuns. Bought by pioneer Coxes in 1867, and occupied by them for 50 years.

2. Cultural Center and Fire Hall, Northwest corner Eleventh and "E" Streets

Built in the 1930s as an early project of the Works Project Administration, the building has served both as a cultural center and a fire station.

3. Eagles Lodge Building, 467 West Ninth Street

Built before 1887, the house is the former residence of I.R. Brunn, prominent businessman and County Supervisor. From 1893-1903, the structure served to house the San Bernardino Public Library.

4. Garner Commercial Block, 362 North "D" Street (see Figure 16*)

Red brick commercial block built in 1877-78 by R.F. Garner. New front and interior remodeling in 1931.

5. Harris Company Department Store, 300 North "E" Street (see Figure 16*)

The Harris Brothers opened a dry goods store on Third Street in 1905. After expansion and a move to another location on Third Street, the company built this structure in 1927, designed by architect Howard E. Jones, who also designed the Andreson Building across the courtyard.

6. Heritage Building, 440 Court Street (see Figure 16*)

Built in 1828-29 for the Pioneer Title Company of San Bernardino. Designed by architect De Witt Mitcham. The structure has been completely restored to its original condition.

7. Pacific Electric Substation #24, Southeast corner Rialto and "F" Streets

Probably built in 1924 or shortly thereafter. Machinery in this concrete building supplied power for local Pacific Electric lines in the San Bernardino Valley.

* Source: Steele's Historic Photo Collection.

TABLE 16 (Cont.)

8. Platt Building, Southeast corner of Fifth and "E" Streets (see Figure 16*)

Built in 1924 by developer Frank Platt as a downtown office building. As a young law student, future president Lyndon Johnson ran the elevator in 1925.

9. San Bernardino County Courthouse, Arrowhead Avenue at Court Street

Built at the site of the Mormon Council House which served as the first courthouse, this courthouse was constructed in 1926-27 to replace the earlier stone courthouse. This was also the site of the city's earliest house, the Lugo adobe, and of the Mormon Stockade.

10. Santa Fe Rialto and Kite Route Station, Viaduct Park, Third and Mount Vernon

Built in 1893, this train station has been moved from its original location just east of "E" Street. This station was the first stop out of the main San Bernardino station on the eastern loop of the Santa Fe Kite Route track.

11. Women's Clubhouse, 580 West Sixth Street

The San Bernardino Women's Club was established in 1892, and erected this building in 1906.

12. Woolworth Building, Southwest corner of Fourth and "E" Streets (see Figure 16*)

Built in 1936, this Art Deco structure is sheathed in orange and brown terra cotta. It is an excellent sample of the Moderne department store of this era.

13. Amasa - Lyman Rich House, 783 Mountain View

Built by Hamilton Wallace in the late 1870s, this two-story wood frame residence is believed to be Lyman Rich's original residence in San Bernardino.

Additional structures which could potentially qualify as significant historic resources but which have not yet been researched include the following:

14. Arrowhead Baptist Church, 631 North "G" Street

15. Colliver House, 950 West "D" Street

16. Culligan Plant Watertower and Shops, East corner of State Street and Cajon Road

* Source: Steele's Historic Photo Collection.

TABLE 16 (Cont.)

17. Christian Science Church, 736 North "E" Street
18. Good Shepard Presbyterian Church, 829 Mount Vernon Avenue
19. Grow House, 591 West 9th Street
20. Neoclassical Apartments (possible railroad hotel), 995 West 2nd Street
21. Railroad Worker Cottage, 1238 West King Street
22. Santa Fe Roundhouse and Shops, 1170 West 3rd Street
23. Series of Victorian Structures, North side 700 block of West "G" Street
24. Series of Victorian Structures, 800 block of West 7th Street
25. Victorian Box Style House, 676 West 10th Street.
26. Victorian Cottage, 795 West 10th Street
27. Victorian House, 439 West 8th Street
28. E.S. Frye House (Circa 1887), 6102 Palm Avenue
29. Orphans House (Circa 1906), 246 Base Line Street
30. Detention House (Circa 1910), 999 "B" Street
31. Waterman Canyon Toll Road Residences (Circa 1890), Waterman Canyon Road

Several of the areas surveyed were of potential historic district merit, containing a cohesive collection of pre-1941 buildings of similar history and architectural identity; these are mapped in Figure 11. It should be noted that the identification of these in potential historic districts is only the initial step conducting an historic survey. The map will serve as the basis for a more comprehensive survey which would itemize and evaluate district boundaries. These districts can be described as follows:

a. Central City Area

A broad area defined by Second Street, Mount Vernon Avenue, Base Line Street, and Waterman Avenue. While much of the historic built environment in this area has not survived, most of the historic housing stock is still intact. The residential district which developed around San Bernardino's historic commercial core contains some of the City's oldest homes, dating between 1880-1920 (see Figure 12, Historical Patterns of Development in San Bernardino 1860-1935). The predominant housing style is the California Bungalow, with a number of Queen Anne Victorian homes also remaining. In general, the housing stock in this area is poorly maintained and in substandard condition. A large proportion of this single-family housing has been converted to rentals, and is owned by absentee landlords who provide inadequate building maintenance.

b. Historic Business District

Much of the larger central business district has undergone redevelopment, with the resultant mixture of modern and historic structures interspersed with vacant lots lacking any sense of architectural cohesion. Nonetheless, some the City's most significant historic structures remain downtown, the greatest concentration of which lie between "D", Third, "E", and Fifth Streets. Historic commercial buildings located within these few blocks include: the Beaux-Arts U.S. Post Office; the Art Deco Woolworth Building; the classical Andreson Building, the Churrigueresque Harris, Platt, Pioneer Title Insurance Co., and California Theatre Buildings; the red brick Garner block; and the City's 1893 Court House clock. Though some of these buildings have undergone modern facade alterations, the majority still retain much of their historic character.

c. Mount Vernon/Santa Fe Railroad District

Bounded by Congress Street, Pico Avenue, Second Street, and I-215. This residential district located south of the historic Santa Fe Railroad Station can be divided into two subsections; that portion east of "L" Street which was developed between 1880-1900 along with the expansion of the rail yard, and the remainder of the area to the west which was developed between 1900-1920. The area consists of vernacular railroad worker housing, California and Craftsman Bungalows, and Victorian era homes. While a scattering of historic structures have been rehabilitated to their original state, the majority of housing in this area is substandard and in need of extensive repair.

FIGURE 11
POTENTIAL HISTORIC DISTRICTS

- Residential District
- ▨ Commercial District

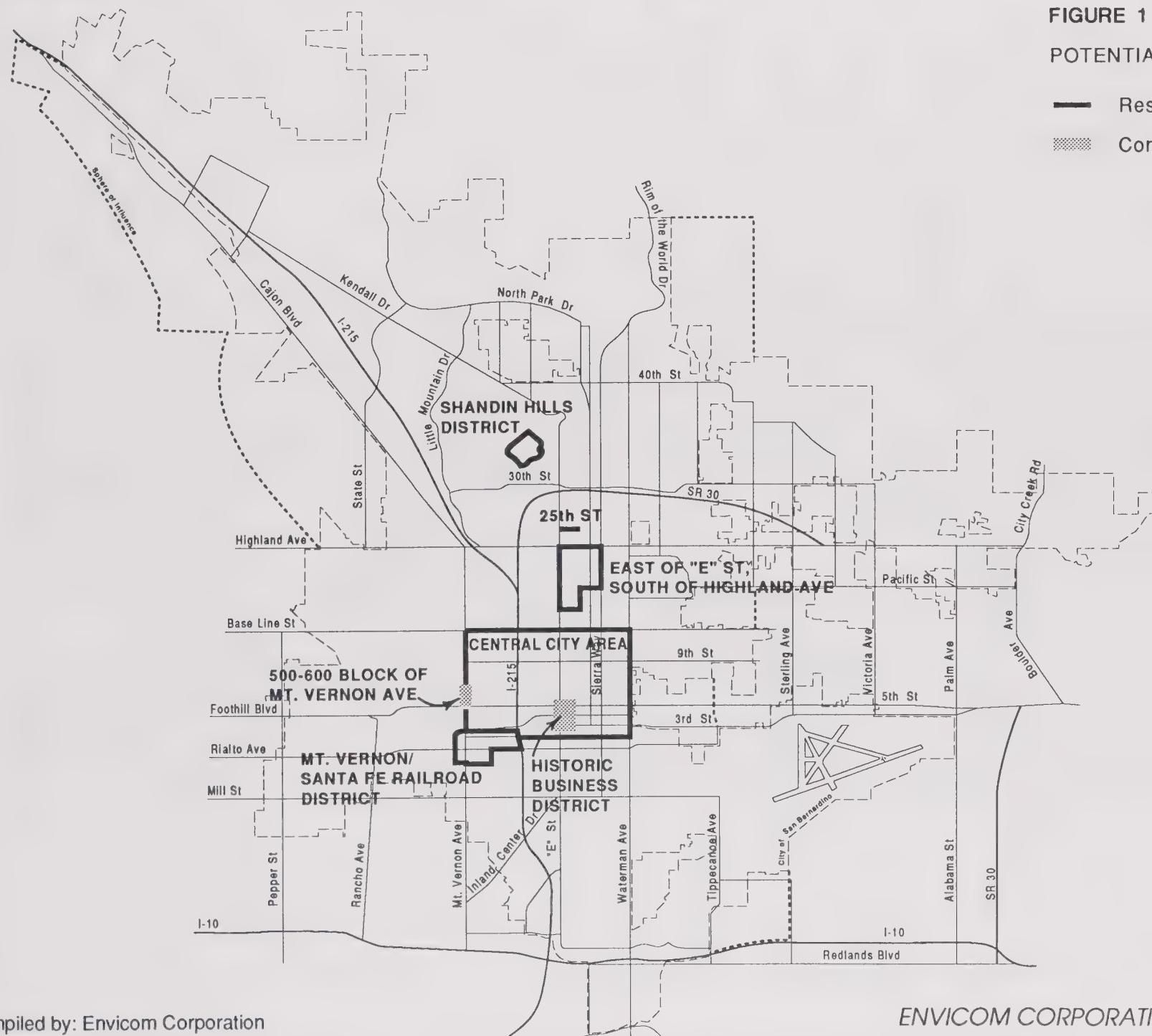
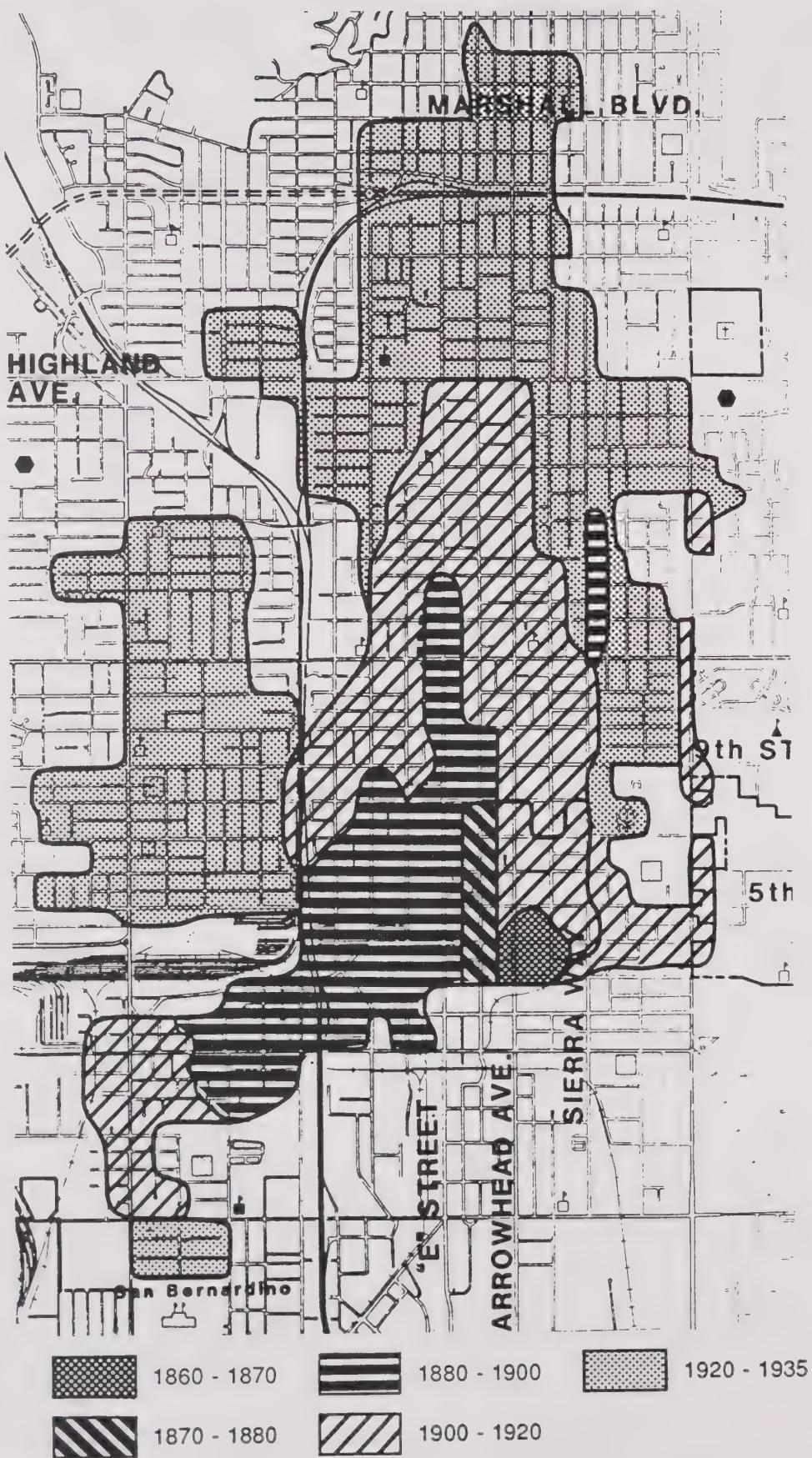


FIGURE 12

HISTORICAL PATTERNS OF DEVELOPMENT
IN SAN BERNARDINO 1860-1935



(Source: Raup, "Settlement and Growth of a
Pass Site City, 1940)

ENVICOM CORPORATION

d. 500-600 Block of Mount Vernon Avenue

Single-story commercial structures dating between 1900-1935 line these two blocks of Mount Vernon Avenue. While many of the frontages of these businesses have been altered with modern materials, this commercial strip forms the social core of the surrounding Hispanic community, at present a cohesive ethnic district.

e. Shandin Hills

This northern portion of the City, north of Edgehill Drive, contains some of San Bernardino's early vacation residences. Built in the 1930s, these large Mediterranean style homes are well maintained and provide outstanding examples of this architectural style and period.

f. East of "E" Street, South of Highland Avenue

Bordered by Fourteenth Street, "E" Street, Highland, and Sierra Way. This solid residential area north of downtown was developed during the 1900-1930 period. It consists predominately of modest California Bungalows, Mediterranean and Spanish revival style homes. Spectacular estate-sized residences are located along 17th and 18th Streets. Constructed as part of the 1907 Palmier Subdivision, these historic residences include Mediterranean, French Normandy, and Colonial architectural styles. As much of this area is zoned for higher residential densities, new apartment construction has begun to degrade the historic and architectural continuity of the area.

g. Twenty-fifth Street Between "E" and Arrowhead Streets

While significant historic residences exist throughout the area north of Highland Avenue, much of the area was built in the mid to late 1940s. A small concentration of pre-1941 residences were found to exist on 25th Street between "E" and Arrowhead Streets. These two blocks of Spanish Revival styled home were likely built in the 1930s, and are believed to have been designed by the same architect. The structures have remained in excellent condition, and represent outstanding examples of this style of architecture. The tree lined street and mature landscaping serve to further enhance the neighborhood's visual quality.

D. SIGNIFICANT HISTORIC STRUCTURES

In addition to concentrated historic districts, San Bernardino contains a diversity of individual structures located throughout the planning area which are historically significant. Formal designations are the most common way of recognizing historic properties. Designations can be made through local, state and federal programs. The following official historic designations have been achieved by structures within the planning area and are indicated on Figure 13, Table 17, and Figure 14.

FIGURE 13
HISTORIC LANDMARK LOCATIONS

BUILDINGS ON THE NATIONAL REGISTER

- ◆ San Bernardino Post Office

CALIFORNIA POINTS OF HISTORIC INTEREST

- ① Santa Fe Railroad Station Building
- ② Andreson Building
- ③ Heritage House
- ④ Sturges Auditorium
- ⑤ California Theatre
- ⑥ St. Bernardine of Siena Catholic Church
- ⑦ Home of Eternity Cemetery of Congregation Emanu El
- ⑧ Pioneer Cemetery
- ⑨ Rudolph Hack Residence and West Twin Creek Water Company Flume
- ⑩ Home of Neighborly Service
- ⑪ Courthouse Clock

STATE HISTORIC STRUCTURES

- ① Patton State Hospital Residence (#1 and #2)

HISTORIC PARKS

- ▲ Campo Santo Memorial Park
- ▲ Pioneer Park
- ▲ Meadowbrook Park

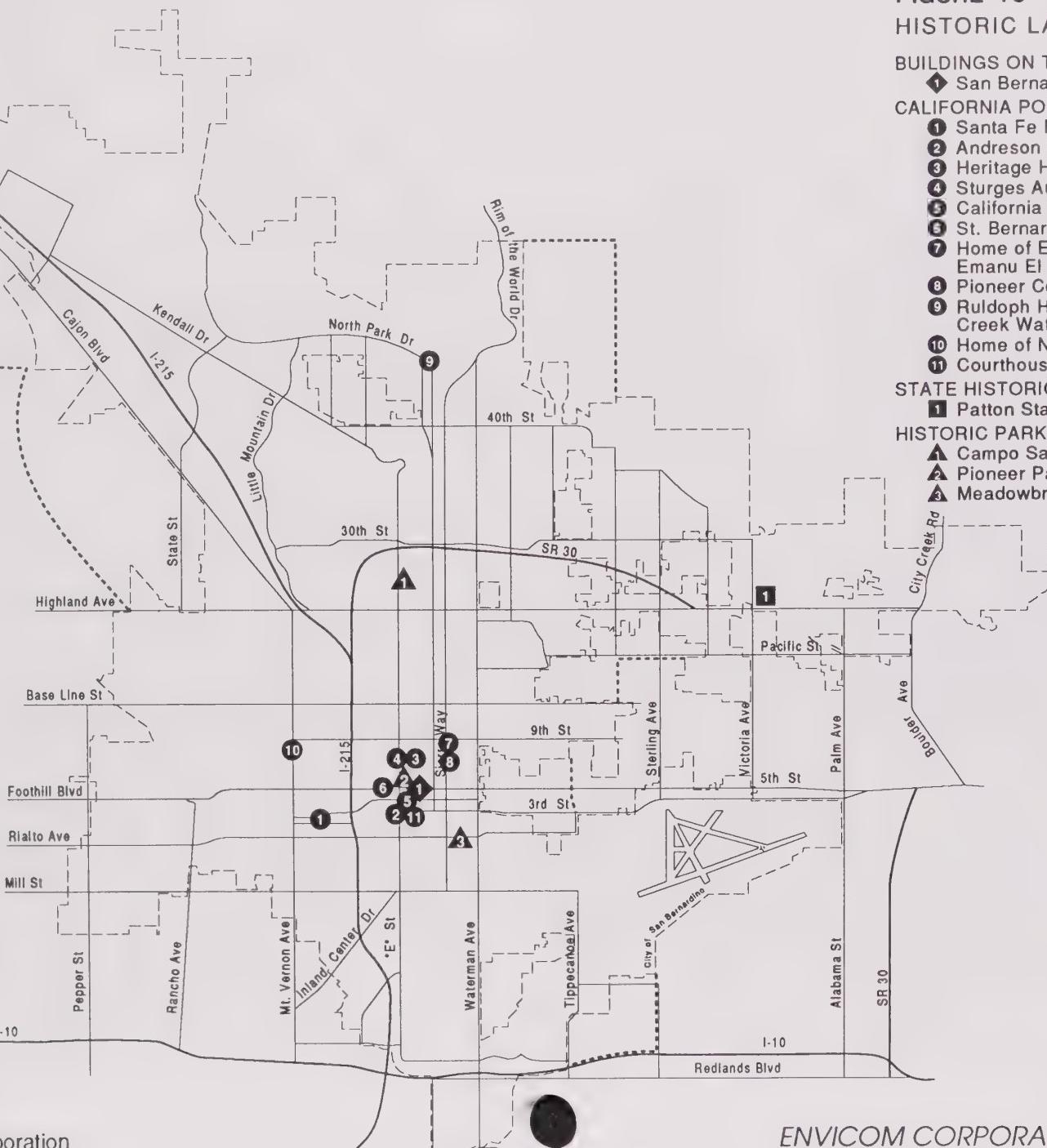


TABLE 17

Designated Historic Landmarks

A. NATIONAL REGISTER OF HISTORIC PLACES

1. San Bernardino Post Office, NE corner Fifth and "D" Streets (NRHP-L-85-136) (see Figure 16*)

The City's first post office was constructed in 1931. It served as the City's main post office and federal building until 1968, when a larger structure was built on south "E" Street. It is a classic example of Beaux arts architecture common among Federal buildings of the period.

B. CALIFORNIA POINTS OF HISTORICAL INTEREST

1. Santa Fe Railroad Station Building, Third Street east of Mount Vernon (CPHI-53) (see Figure 16*)

September 13, 1833 marked the coming of one of the first trains to San Bernardino. In 1886, arrangements were made for the construction of a division headquarters, including machine shops and depot at San Bernardino. The depot, a large two-story wooden frame structure situated at the north end of the present "K" Street was burned in 1916. By 1887, freight and passenger buildings had been erected and then in 1918 a new station building was completed and is still in use by the Santa Fe and Union Pacific. The depot has an impressive architectural motif with a moorish-mission style of arches, domes, towers, and tile roof. The station represents the largest of the Mission Revival railroad stations built in California.

2. Andreson Building, Northwest corner of Third and "E" Streets (CPHI-90) (see Figure 16*)

Standing on a corner lot bought by John Andreson Sr. in 1870, the present building which was constructed in 1927 succeeds the earlier Andreson Brewery. The building was designed in a modern classical spirit, with an overall simplicity that contrasted with the Art Deco and Renaissance styled structures of the day. It was nominated for National Register designation in 1979, yet failed to receive designation.

3. Heritage House, Southwest corner of Eighth and "D" Streets (CPHI-102)

Queen Anne Victorian built in 1891 by Superior Judge George Otis of Redlands. The house has been completely restored and accommodates a museum which displays artifacts of the Victorian era.

* Source: Steele's Historic Photo Collection.

TABLE 17 (Cont.)

4. Sturges Auditorium, Southwest corner of Eighth and "E" Streets (CPHI-100)

Sturges Auditorium was built in 1927, and was occupied in 1928, a part of the building boom of the 1920s. It was built on the site of the Sturges Academy which was founded in 1883 by David B. Sturges, a former San Bernardino County Superintendent of Schools.

5. California Theatre, 562 West Fourth Street (CPHI-103) (see Figure 16*)

A Spanish Colonial Revival theatre built as part of a commercial block in 1928. The theatre served as the home of both live theatre and film until 1969. Currently used by the Civic Light Opera and other musical groups; it still contains a rare theatre pipe organ.

6. St. Bernardine of Siena Catholic Church, Northeast corner of Fifth and "F" Streets (CPHI-106) (see Figure 16*)

Construction of St. Bernardine of Siena Catholic Church began during the Civil War. The current church was built in 1910, and opened in 1912. Two previous wooden churches had stood on this site, both destroyed by fire. The craftsman interior design, stained glass windows and fine polished woods are indicative of the Arts and Crafts Movement.

7. Home of Eternity Cemetery of Congregation Emanuel, Eighth and Sierra Way (CPHI-44)

The Home of Eternity Cemetery is the oldest Jewish burial ground in continuous use in southern California. It has been used by the Jewish community of the San Bernardino area since 1861. It was first deeded to the Jewish community through a deed made out to Marcus Katz, a prominent Jew of the nineteenth century, and has been used every since. It contains markers of special historical interest in that they are the monuments of the graves of the most prominent pioneer Jewish families of southern California.

8. Pioneer Cemetery, Northeast corner of Seventh and Sierra Way (CPHI-24)

The site of the cemetery was first occupied in 1851 by the homes of settlers, and eventually became a burial site. The cemetery contains the graves of many of the city's prominent pioneers, and in particular, those with Spanish surnames.

TABLE 17 (Cont.)

9. Rudolf Hack Residence and West Twin Creek Water Company Flume, 5395 North Mountain View Avenue (CPHI-104)

The Rudolf Hack residence was part of the 1892 L. Van Dorin subdivision. The original home was made of redwood siding and contained a wine cellar where barrels of homemade wine were stored. Bordering the house is a rock and concrete flume approximately 200 feet long, remnants of an irrigation system built by the Mormons.

10. Home of Neighborly Service, 839 North Mount Vernon Avenue (CPHI-88)

This Mission Revival Style church was dedicated on December 19, 1926. The building project was organized by the Board of National Missions of the Presbyterian Church, and was funded by that organization and other Christian organizations during the early 1920s. The organization and operational format of this community center was directly patterned after the famous Jane Hull House in Chicago. The building has immense historic and emotional value to the Hispanic and Black communities of San Bernardino.

11. Courthouse Clock, "E" Street at Convention Center (see Figure 16*)

After the present courthouse was completed in 1927, the old stone courthouse on Court and "E" Streets was razed, and the 1875 Seth Thomas clock from its tower was put in storage. The clock has since been remounted in a new tower at the Convention Center.

C. STATE HISTORIC STRUCTURES

1. Patton State Hospital Residence (#1 and #2), Circle Place Drive and Olive Street (CHS-2369-1)

Built in 1890 as the third state mental institution in California. Its imposing Gothic architecture is characterized by deeply punctuated windows, spired roofs, cupolas, and varying facade setbacks.

HISTORIC LANDMARKS: A

FIGURE 14



San Bernardino Post Office



Santa Fe Railroad Station Building



Andreson Building

HISTORIC LANDMARKS: B

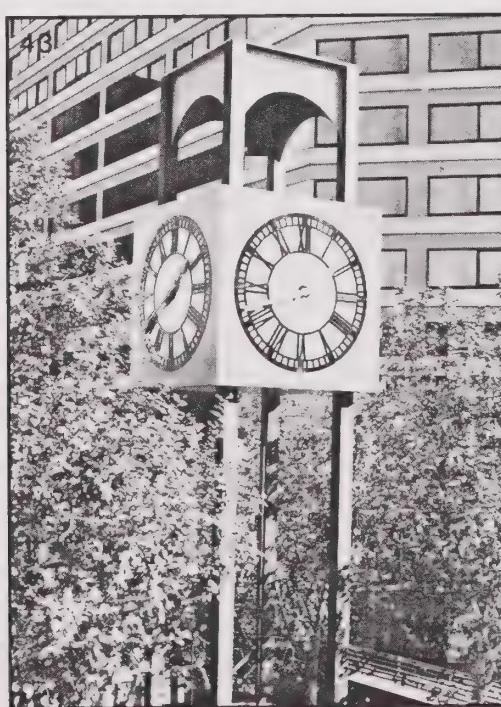
FIGURE 14
continued



California Theatre



St. Bernardine of Siena
Catholic Church



Courthouse Clock

HISTORIC LANDMARKS: C

FIGURE 14
continued

51



Garner Commercial Block

52



Harris Company Department Store

53



Heritage Building

HISTORIC LANDMARKS: D

FIGURE 14

continued

61



Platt Building

62



Woolworth Building

1. National Register of Historic Places

Listing on the National Register is limited to buildings of national significance. Properties must be a minimum of 50 years old or be of exceptional importance, retain their architectural integrity, and represent an outstanding example of the architectural period.

2. California Points of Historical Interest

This program recognizes properties of County-wide and regional importance, and is somewhat less stringent in its requirements than the National Register. State designation offers some protection under the California Environmental Quality Act (CEQA), requiring a study of impacts and suggested mitigations where development threatens a listed property.

3. California Register of Historic Resources

A recently created program established to inventory and record historic structures.

4. California Historic Landmarks

The State Historic Landmarks program recognizes buildings, objects, sites, and structures of State-wide significance. While no standing structures in San Bernardino currently have State Landmark designation, two historic sites have achieved Landmark status.

While many structures in the planning area merit local, state, or national historic designation, very few of these have been inventoried and evaluated. The U.S. Post Office on Fifth Street is the only building listed on the National Register of Historic Places, and only eleven other structures, including two cemeteries and an historic clock, have been identified as California Points of Historical Interest. The lack of official historic designation for the myriad of potentially qualified structures in San Bernardino is due in part to the lack of a formal process for recognizing historic structures. Unlike nearby communities such as Redlands which has actively pursued historic preservation through adoption of an historic preservation ordinance and techniques such as down-zoning and financial incentives for building rehabilitation, the City of San Bernardino offers no such incentives for historic preservation. The City does maintain a Department of Cultural Affairs whose single staff person has advocated historic designation for several structures in the City. However, a far more comprehensive approach is necessary to designate and protect the City's historic resources.

E. HISTORIC PARKS

The planning area contains three historically significant parks. Pioneer and Meadowbrook Parks are located in the old city, whereas Campo Santo Memorial Park is

located in the northern portion of the City. The following is an abridged history of each park.

Campo Santa Memorial Park, south of 27th Avenue, between "E" Street and Arrowhead Avenue: The earliest Catholic cemetery in San Bernardino occupied a plot donated to the church in 1869 by William A. Conn. By 1875, more room was needed, and a second cemetery was opened on "E" Street north of town. Burials were moved to this site from the former location. The fee for burial was probably small, and there was no responsibility for perpetual care of the cemetery. The cemetery's neglected condition and removal of many burials to Mt. View Cemetery prompted the City to landscape the area and dedicate it as a memorial park under supervision of the City.

Pioneer Park, north of 5th, between "E" and "F" Streets: When the Mormon settlers laid out the grid for the townsite of San Bernardino in 1853, the center block was designated as the Town Square. In 1864 the Catholic Church purchased the entire Town Square from the Mormons, and in 1873 donated the northern part of the block, about five acres, to the "inhabitants of the town of San Bernardino for use as a public park." Initially called "Public Square" or "City Park," the park later took on the name "Lugo Park" after Antonio Maria Lugo from whom the Mormons originally purchased the land. In 1915, the park was again renamed, and "Pioneer Park" became the official name which has been used ever since. A large wooden pavilion was constructed in the park in 1891, and was the site for political rallies, religious meetings and social gatherings. Completely destroyed by fire in 1915, the Pavilion was replaced in 1923 with the Municipal Auditorium. The new auditorium was home to dances, concerts, theatrical productions, conventions, and other cultural events until it was declared structurally unsafe in 1977 and demolished. The Norman F. Feldheym Central Library currently stands in the center of Pioneer Park, with the park's remaining open space landscaped and monuments placed to remind its users of the park's historical importance.

Meadowbrook Park, south side of 3rd Street, between Mt. View Avenue and Sierra Way: Meadowbrook Park was originally a swampy jungle situated along Warm Creek. In the mid-1800s, Indians working for San Bernardino's pioneers camped at the site, and the area became known as Squaw Flat. The area was also used as a dump by the pioneers, making it a breeding ground for disease. In 1906, the San Bernardino Women's Club prompted the City to purchase the area and clean it up. The land was graded and landscaped, a bandstand erected, and swimming hole dug adjacent to the creek. For years, Meadowbrook Park served as the City's only recreation park, Lugo (Pioneer) Park being utilized primarily for its Pavilion which housed social and cultural events.

GOALS, OBJECTIVES, AND POLICIES

The following presents goals, objectives, and policies for historical and archaeological resources in the City of San Bernardino. Implementation programs are contained in the following subsection. At the end of each policy is listed a capital "T" and a number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 3A To protect, preserve, and restore the sites, structures and districts which have architectural, historical, archaeological and/or cultural significance to the City of San Bernardino and surrounding area, while promoting community awareness and appreciation of the area's diverse cultural heritage.

Objective

It shall be the objective of the City of San Bernardino to:

- 3.1 Develop a comprehensive Historic Preservation Plan that will ensure that the area's historically significant resources are protected in a manner that preserves and/or enhances the resource's inherent historic value(s).

Policies

It shall be the policy of the City of San Bernardino to:

- 3.1.1 Complete a comprehensive survey of historic, architectural, cultural resources, historic vegetation and archaeological resources that encompasses the entire City and its sphere of influence, and is coordinated by a person or persons qualified in historic preservation (I3.1).
- 3.1.2 Compile and maintain an inventory of the Planning Area's significant historic, architectural, cultural resources and historic vegetation (I3.1, I3.22).
- 3.1.3 Adopt a Preservation Ordinance that will authorize the City to designate any site, structure, area or vegetation deemed to be of historical, architectural, or cultural significance a San Bernardino City Historical Point, Structure, Site or District. Such ordinance shall conform to State and Federal criteria for establishing a preservation ordinance (I3.3, I3.22).
- 3.1.4 Establish a Historic Resources Commission that will review and recommend preservation ordinances and guidelines, recommend

designation of sites, structures and buildings, and recommend design standards and review procedures for restoration, adaptive reuse, or alteration (I3.2).

3.1.5 Apply for Certified Local Ordinance and Certified Local Government status from and enter into agreement with, the California Office of Historic Preservation, in order to designate local historic districts, structures and sites (I3.3).

3.1.6 Establish criteria for the review and designation of historic structures that will enable the City to evaluate historic, architecturally or culturally significant sites, structures or districts in a manner consistent with established criteria for determining the significance of such structure or district which is defined as follows (I3.4).

- a. Its character, interest or value as part of the heritage of the City;
- b. Its location as a site of a significant historic event;
- c. Its identification with a person or persons or groups who significantly contributed to the culture and development of the City;
- d. Its exemplification of a particular architectural style or way of life important to the City;
- e. Its exemplification of the best remaining architectural type in a neighborhood;
- f. Its identification as the work of a person or persons whose work has influenced the heritage of the City, the state or the United States;
- g. Its embodiment of elements of outstanding attention to architectural design, detail, materials or craftsmanship;
- h. Its relationship to other landmarks or landmark districts if its preservation is essential to the integrity of the landmark or landmark district;
- i. Its unique location or singular physical characteristics representing an established and familiar visual feature of a neighborhood;
- j. Its potential of yielding information of archaeological interest;
- k. Its integrity as a natural environment that strongly contributes to the well-being of the people of the City.

- 3.1.7 Review the structures throughout the City, as listed in the comprehensive survey, and determine their eligibility for inclusion as City Historic Structures, utilizing established City criteria as outlined in Policy 3.1.6. A review shall include, but not limited to the items listed in Table 16 (I3.4, I3.22):
- 3.1.8 Adopt the language and intent of the Secretary of Interior Standards for Historic Rehabilitation and standards and guidelines as prescribed by the State Office of Historic Preservation as the architectural and landscape design standards for rehabilitation, alteration, or additions to sites containing historic resources in order to preserve these structures in a manner consistent with the site's architectural and historic integrity (I3.5).
- 3.1.9 Develop specific zoning regulations for districts designated as historically significant that protect the integrity of contributing buildings through specialized standards for building height, building placement, setback and landscaping (I3.7).
- 3.1.10 Develop a Historic Preservation Overlay Zone (HPOZ) to protect and enhance the use of historic structures, areas which contain a historic character but do not meet the criteria of a historic district, natural features, sites and areas, and develop and maintain the appropriate setting and environment to preserve historic resources (I3.6).
- 3.1.11 Establish a design review process for potential development projects in Historic Preservation Overlay Zones and in areas adjacent to designated historic resources that will ensure compatible development in terms of scale, massing, building materials and general architectural treatment. Guidelines established for the Main Street program in downtown San Bernardino shall be utilized as the framework to establish a HPOZ in the Main Street district area.(I3.6, I3.7).
- 3.1.12 Require that all City-owned properties containing or adjacent to historic resources are maintained in a manner that is aesthetically and/or functionally compatible with such resources (I3.5, I3.7).
- 3.1.13 Minimize permitted densities in areas identified as having adverse impacts on historic resources due to density allowances that may encourage demolition or alteration of historic resources (I3.8).
- 3.1.14 Identify potential historic districts utilizing survey data, established state and federal guidelines, and City criteria for determining a district, which is defined as any area which contains a number of structures or natural features having a special character or special historical, cultural, architectural, archaeological, community or aesthetic value. The areas

shown in Figure 16, and others that may be defined, shall be considered for potential historic districts (I3.9):

Objective

It shall be the objective of the City of San Bernardino to:

- 3.2 Provide incentives to private owners of historic resources to maintain and/or enhance their properties in a manner that will conserve the integrity of such resources in the best possible condition.

Policies

It shall be the policy of the City of San Bernardino to:

- 3.2.1 Encourage owners of historic income-producing properties to use the tax benefits provided by the 1981 Tax Revenue Act or as may be amended (I3.10, I3.26).
- 3.2.2 Waive building permit fees for owners of small properties with historic resources who are unable to benefit from other government programs for the rehabilitation, alteration or reuse of their structure(s) (I3.10).
- 3.2.3 Allow flexibility in building code requirements for the rehabilitation of historic structures (I3.10, I3.23, I3.25).
- 3.2.4 Provide for the purchase of facade easements from private property owners; allow private nonprofit preservation groups to purchase facade easements. A historic easement would include any easement, restriction, covenant or condition running with the land designed to preserve or maintain the significant features of such landmarks or structures (I3.10).
- 3.2.5 Provide technical advice to private property owners seeking to restore historically significant structures (I3.10).
- 3.2.6 Seek the participation of the Redevelopment Agency and/or work with local lending institutions to provide appropriate financing for the rehabilitation and restoration of historically significant structures (I3.12).
- 3.2.7 Encourage appropriate adaptive reuse of historic resources in order to prevent misuse, disrepair and demolition, taking care to protect surrounding neighborhoods from disruptive intrusions (I3.10, I3.11).

Objective

It shall be the objective of the City of San Bernardino to:

- 3.3 Promote community appreciation for the unique history of the San Bernardino area and community involvement in its retention and preservation.

Policies

It shall be the policy of the City of San Bernardino to:

- 3.3.1 Promote the formation and maintenance of neighborhood organizations and foster neighborhood conservation programs, giving special attention to transitional areas (I3.14).
- 3.3.2 Encourage the Chamber of Commerce and the Convention and Visitors Bureau to promote the City's historic resources in visitor and tourist oriented brochures (I3.15).
- 3.3.3 Develop brochures to accommodate pedestrian and vehicular tours of historic buildings, landmarks, neighborhoods and other points of historical interest in the San Bernardino area (I3.15).
- 3.3.4 Promote community awareness of historic preservation through San Bernardino's appointed and elected officials, as well as through local organizations (I3.2, I3.12, I3.15, I3.17, I3.18).
- 3.3.5 Encourage the participation of local residents by facilitating their participation, first in surveying the City for historically significant structures, sites, and/or districts, and secondly, in designation and protection of such structures (I3.13, I3.14, I3.17).
- 3.3.6 Cooperate with local historic preservation organizations doing preservation work and serve as liaison for such groups (I3.13, I3.18).
- 3.3.7 Encourage the involvement of San Bernardino City Unified School District, private schools, adult education classes, California State University at San Bernardino, the San Bernardino County Museum, San Bernardino Valley College in preservation programs and activities (I3.13, I3.14).
- 3.3.8 Examine the feasibility of establishing a cultural/historical resource center which acts as an archive and clearinghouse of artifacts and resource documentation and provides learning opportunities for the public (I3.18).

Objective

It shall be the objective of the City of San Bernardino to:

- 3.4 Minimize the displacement of the economically disadvantaged from designated areas of historical significance.

Policies

It shall be the policy of the City of San Bernardino to:

- 3.4.1 Establish a program to deter the displacement of elderly and lower income persons from their homes in historic structures, sites, or districts (I3.19).
- 3.4.2 Establish a review process for potential development projects in areas containing historic resources to ensure a proper review and hearing of projects that may displace residents of historic structures (I3.19).

Objective

It shall be the objective of the City of San Bernardino to:

- 3.5 Protect and enhance historic, architectural, or cultural resources in commercial and redevelopment areas in a manner that will encourage revitalization and investment in these areas.

Policies

It shall be the policy of the City of San Bernardino to:

- 3.5.1 Encourage the preservation, maintenance, enhancement and reuse of existing buildings in redevelopment and commercial areas; the retention and renovation of existing residential structures; and the relocation of existing residential structures when retention on-site is deemed not to be feasible (I3.20, I3.21).
- 3.5.2 Develop design standards for commercial areas that promote the removal of tacked-on facades and inappropriate signage on commercial buildings, the restoration of original facades and requires that the design of new construction complements old in a harmonious fashion, enhancing the historic pattern (I3.5, I3.7).
- 3.5.3 Coordinate Redevelopment Agency planning with the regular City planning process in the area of historic preservation (I3.20).

- 3.5.4 Develop programs in the areas of tax relief, transfer of development rights, and building code relaxation as these apply to historic buildings and districts (I3.10, I3.11, I3.25, I3.26).
- 3.5.5 Establish a program to relocate reusable older buildings from or into redevelopment projects as a means of historic preservation (I3.21).
- 3.5.6 Utilize the Redevelopment Agency as a vehicle for preservation activity. The Agency is currently empowered to acquire, hold, restore, and resell buildings (I3.12, I3.20, I3.21).
- 3.5.7 Require that an environmental review be conducted on demolition permit applications for buildings designated or potentially eligible for designation as historic structures, that the guidelines of the California Environmental Quality Act (CEQA) be followed in reviewing demolition requests for structures in the above two categories and prohibit demolition without a structural analysis of the structure's ability to be rehabilitated and/or relocated (I3.23).
- 3.5.8 Allow public comment on demolition permit applications, rehabilitation projects, and alteration to structures designated or potentially eligible for designation (I3.23).

Objective

It shall be the objective of the City of San Bernardino to:

- 3.6 Protect and minimize disruption of the City's archaeological resources.

Policies

It shall be the policy of the City of San Bernardino to:

- 3.6.1 Complete an inventory of areas of archaeological sensitivity in the planning area (I3.22).
- 3.6.2 Develop mitigation measures for projects found to be located in archaeologically sensitive areas or sites, to protect such locations, or remove found artifacts or materials and retain for educational display (I3.22).
- 3.6.3 Seek to educate the general public about San Bernardino's archaeological heritage when the comprehensive survey results are available, through written brochures, maps, and reference materials (I3.22).

3.6.4

Require that an environmental review be conducted on all applications including grading, earth-moving, building, or demolition permit applications, or for archaeological resources discovered during construction, for sites designated or potentially designated as archaeologically significant in order to ensure that these sites are preserved and protected (I3.23).

IMPLEMENTATION PROGRAMS

The following indicates the programs which shall be carried out by the City of San Bernardino to implement the goals, objectives, policies, and standards of the Historical and Archaeological Resources Element. Each program is preceded by a capital "I" and number which is referenced by the pertinent policy which it implements in the preceding section (these are noted in parentheses at the close of each policy).

- I3.1 The City shall survey and inventory all historic, cultural, architecturally, and archaeologically significant resources within the area utilizing City staff and the services of the interested public, that will guide future planning and aid in decision-making. The comprehensive survey shall be completed within twelve (12) months of adoption of the General Plan..
- I3.2 Establish a Historic Resources Commission within six (6) months of adoption of the General Plan consisting of local residents, a majority of whom have an expertise in historic preservation. Their duties will be to conduct or oversee the comprehensive survey, define and recommend the designation of sites, structures or districts as historic resources, to establish recommended design standards and design review procedures for such historic resources, and to continue as an advisory body to the City.
- I3.3 The City shall adopt a Historic Preservation Ordinance which will enable the City to pursue its preservation policies through conformance with the California Office of Historic Preservation standards for Certified Local Ordinance/Local District, and Certified Local Government Programs within eighteen (18) months of the adoption of the General Plan.
- I3.4 The City shall adopt specific criteria for determining significance of historic resources and develop a certification program for Historic Points of Interest, Sites, Structures and Districts.
- I3.5 The City shall adopt in an ordinance form the Secretary of Interior Standards for Historic Rehabilitation and the standards and guidelines of the State Office of Historic Preservation as the governing regulations on restoring, altering or adding to designated historic structures.
- I3.6 The City shall revise the Development Code to include a Historic Preservation Overlay Zone that is designed to protect and enhance the setting and environment of significant sites, structures and districts in the City through specific requirements for setbacks, building placement, height, massing and architectural concept.
- I3.7 Develop and/or enhance design standards for new construction and landscaping to insure special measures are made for site preservation of

historically significant resources and compatibility of new with old. These standards shall encourage the following:

- a. Compatibility in building design, placement and scale with adjacent buildings of historical significance.
- b. Emulation of the existing character of spaces and setbacks so as to retain the ambient rhythm of the streetscape.

I3.8 Review the effects changes in zoning and amendments to the General Plan will have on historic preservation objectives and, if warranted, revise the changes to reflect the goals of the Historical and Archaeological Resources Element which may include down-zoning in certain areas, particularly residential, to protect historic resources.

I3.9 Establish historic districts that meet City criteria; consider as a priority the establishment of the following potential districts if they meet the criteria:

- a. Central City Area (bounded by 2nd Street, Mount Vernon Avenue, Base Line Street, and Waterman Avenue).
- b. Historic Business District (bounded by D Street, Third Street, E Street, and 5th Street).
- c. Mount Vernon/Santa Fe Railroad District (bounded by Congress Street, Pico Avenue, Second Street, and I-215).
- d. 500-600 Block of Mount Vernon Avenue
- e. Shandin Hills (north of Edgehill Drive).
- f. East of E Street/South of Highland (bounded by 14th Street, E Street, Highland Avenue and Sierra Way).
- g. 25th Street Between E and Arrowhead

I3.10 The City should enact a program to provide incentives for preservation, restoration and rehabilitation of historic resources through purchase of facade easements, waiver of fees, flexible building requirements, rehabilitation loans and grants, and technical advice by person(s) qualified in historic preservation, restoration techniques, and loans and grant programs, and building regulations.

I3.11 The City shall enact revisions to the Development Code that will encourage adaptive reuse through a reinterpretation or changes to the Code where it applies to new uses in older structures, provisions for additions

- or retention of additions to older structures, setback and parking requirements so as to foster the continued use of such older structures.
- I3.12 Work with the Redevelopment Agency and local lending institutions in developing a financing program or other programs to provide financial assistance benefiting owners of historic resources who can prove a need for financial assistance in connection with historic preservation.
- I3.13 The City shall designate a Historic Preservation Officer, qualified in historic preservation, and as funds are available who shall coordinate preservation activities sponsored and adopted by the City, act as staff to the Historic Resources Commission, and promote a greater knowledge, appreciation, and participation in historic preservation in the City through municipal publications, advocacy of preservation, and liaison to the San Bernardino community.
- I3.14 Support the formation and maintenance of neighborhood and community organizations as effective community input into municipal affairs.
- I3.15 Work with the San Bernardino Chamber of Commerce and the Convention and Visitor's Bureau on developing brochures promoting the historical resources of the City and surrounding area.
- I3.16 Develop a historic building handbook which describes historic structures, sites, and districts, and provides information on building research and appreciation, and sets forth guidelines for rehabilitation.
- I3.17 Coordinate with local media to inform the public of upcoming events involving historic preservation.
- I3.18 Develop a program in conjunction with the City of San Bernardino Public Library to hold regularly scheduled public workshops and lectures on historic preservation and restoration. Establish an archive of historical and architectural works and documents relevant to preservation in San Bernardino.
- I3.19 Develop and enact a program to first, identify elderly and low-income persons in historic structures and second, to provide means to retain ownership and tenancy in historic structures through financial subsidies for upkeep and rehabilitation, lease and mortgage payments, and adequate relocation costs for projects found to require relocation. A review committee (which may be an existing, standing committee) shall be empowered to recommend policy and to oversee process and procedure for review of individual cases.

- I3.20 The Redevelopment Agency, Planning Department and other appropriate departments and agencies shall coordinate their activities regarding historic preservation, and establish policies and programs that are designed to preserve, protect and restore historic sites, structures and districts. City agencies shall review their current policies and programs for their impact on preservation and revise such programs so as to not cause any adverse impacts on historic resources.
- I3.21 The City, in connection with the Redevelopment Agency, using any available funding sources as may be deemed appropriate, shall enact a program that, in a clearly defined "last resort" situation, may relocate reusable older buildings from or into Redevelopment areas. This program and individual actions thereto shall be reviewed by the Historic Resources Commission.
- I3.22 The City shall devise a program to inventory archaeological sites, categorize these sites, educate the general public and the development community on the location and significance of such sites, and provide mitigation measures to protect these sites from alteration or destruction.
- I3.23 Develop a City Ordinance to require environmental review as per California Environmental Quality Act (CEQA) on the demolition/rehabilitation of buildings and structures deemed to be of historical significance, and utilize CEQA through determination of level of significance and impact and mitigation measures, in order to preserve and protect historic, architectural, cultural, archaeological, and historic vegetation resources.
- I3.24 Develop a work program for the implementation of policies and programs set forth in this element.
- I3.25 Adopt the State of California Historic Building Code to accommodate the rehabilitation of historic and older structures.
- I3.26 The City through the Historic Preservation Officer, shall actively pursue alternative funding including grants, loans, and tax benefits which are available from State and Federal sources to encourage Historic Preservation.

4.0 ECONOMIC DEVELOPMENT

INTRODUCTION

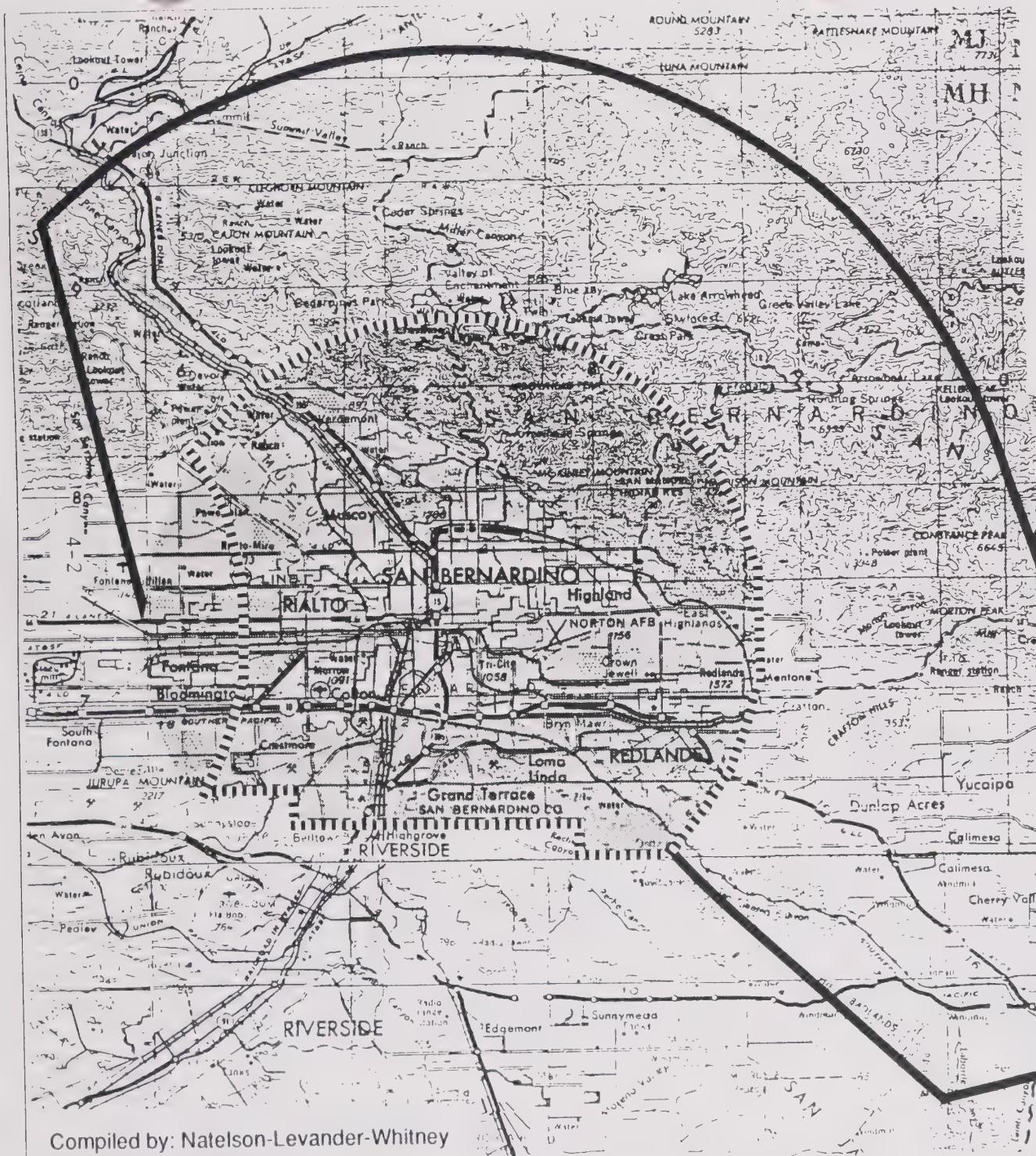
It is the intent of this section of the General Plan to define a set of policies which will assist the City's elected leadership and management in the formation of deliberate initiatives for the maintenance and enhancement of San Bernardino's economic development. An Economic Development Element is not mandated as part of a City's General Plan by State law. However, the realization of many policies contained throughout the State-mandated elements will be inseparably linked to the strategies defined herein.

BACKGROUND DATA AND ANALYSES

A. RETAIL ACTIVITY

1. The trade area for non-regional retail activity was determined to be coincident with the planning area boundaries. Figure 15 presents the trade area for regional space located in the planning area. It is broken down into two areas, a Primary Regional Market Area and a Secondary Regional Market Area. The current Primary Regional Market Area will be impacted by a one million square foot regional mall scheduled to commence operations in Rancho Cucamonga in 1992 (as indicated in Figure 15).
2. Approximately 6.07 million square feet of retail space is located in the planning area. This space can be divided into three types: regional, subregional, and community-oriented. Regional space is concentrated in the Central City Mall and Inland Center and totals 1,890,000 square feet of gross leasable area (GLA). Subregional space is found in the largest freestanding, highway-oriented outlets along I-10 Freeway. These include the Home Club, Buyers Club, Pace Club and the Freeway Home Center. Also included are the Camping World and Sports Club due to their proximity to the other "Clubs." The total GLA of subregional space is 541,000 square feet. The balance of 3.67 million square feet of GLA is community-oriented.
3. The overall vacancy rate of planning area retail space is approximately 10 percent, according to local commercial brokers.
4. It is estimated that the purchasing power of the planning area would support 4.2 million square feet of retail space as shown in Tables 18 and 19. Surveys of shopping patterns show that approximately 20 percent of retail purchasing power in Southern California is spent in regional space. This share of planning area expenditures would support an estimated 833,000 square feet of regional mall space, resulting in support for 3.3 million square feet of neighborhood and community-oriented retail space. There are currently an estimated 6.07 million square feet of retail space of which 1.89 million are regional space and 451,000 square feet are subregional space. Adjusting for regional space and subregional space, as well as

FIGURE 15
SAN BERNARDINO MARKET AREAS



Existing Primary Market Area

Secondary Market Area

1992 Adjusted Primary Market Area

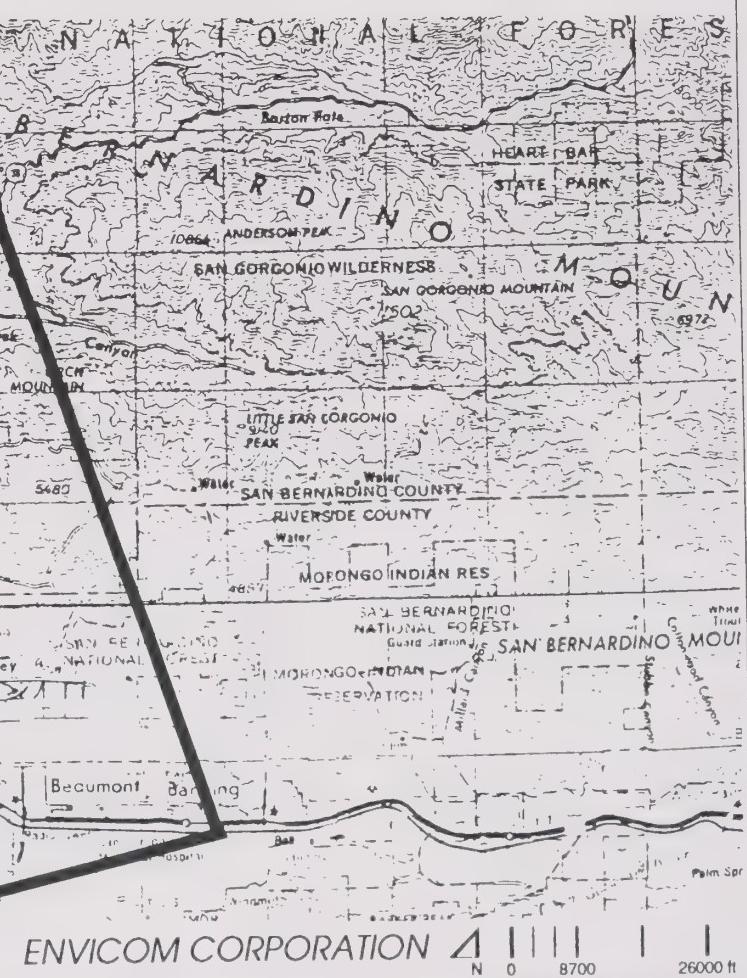


TABLE 18

Planning Area Purchasing Power 1986

	<u>Planning Area</u>	<u>San Bernardino County</u>	<u>5-County Region</u>
Purchasing Power Index			
Per Capita Income (\$)	10,250	9,491	12,026
Index (% of Region)	85.2%	78.9%	100.0%
Retail Per Capita Purchasing Power (1986 Constant \$)			
Apparel	237	219	278
General Merchandise	615	570	722
Drug	125	116	147
Food	1,188	1,100	1,394
Liquor	63	59	74
Eating and Drinking	481	538	682
Home Furnish & Appliances	221	204	259
Building and Farm	359	333	422
Automotive	1,343	1,244	1,576
Other Retail	538	498	631
Total	5,271	4,881	6,185
Purchases (1986 Constant \$000s)			
Apparel	45,573	243,721	3,607,390
General Merchandise	118,292	632,609	9,363,443
Drug	24,077	128,763	1,905,865
Food	228,370	1,221,291	18,076,719
Liquor	12,155	65,005	962,160
Eating and Drinking	111,786	597,819	8,848,501
Home Furnish & Appliances	42,424	226,880	3,358,117
Building and Farm	69,100	369,540	5,469,676
Automotive	258,270	1,381,193	20,443,480
Other Retail	103,450	553,235	8,188,610
Total	1,013,499	5,420,056	80,223,961

TABLE 19
Planning Area Purchasing Power Projections

	<u>1986</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>
Planning Area					
Population	192,269	220,475	237,865	256,628	276,870
Purchases (1986 Constant \$000s)					
Apparel	45,573	52,259	56,381	60,829	65,627
General Merchandise	118,292	135,646	146,345	157,888	170,342
Drug	24,077	27,610	29,787	32,137	34,672
Food	228,370	261,872	282,528	304,814	328,856
Liquor	12,155	13,939	15,038	16,224	17,504
Eating and Drinking	111,786	128,186	138,296	149,205	160,974
Home Furnish & Appliances	42,424	48,648	52,485	56,625	61,092
Building and Farm	69,100	79,238	85,488	92,231	99,506
Automotive	258,270	296,159	319,519	344,722	371,913
Other Retail	103,450	118,626	127,983	138,078	148,969
Total	1,013,499	1,162,182	1,253,849	1,352,754	1,459,455
Supportable Building Space (000s SF)					
Apparel	227.9	261.3	281.9	304.1	328.1
General Merchandise	788.6	904.3	975.6	1,052.6	1,135.6
Drug	120.4	138.0	148.9	160.7	173.4
Food	570.9	654.7	706.3	762.0	822.1
Liquor	54.0	61.9	66.8	72.1	77.8
Eating and Drinking	465.8	534.1	576.2	621.7	670.7
Home Furnish & Appliances	282.8	324.3	349.9	377.5	407.3
Building and Farm	493.6	566.0	610.6	658.8	710.8
Automotive	516.5	592.3	639.0	689.4	743.8
Other Retail	646.6	741.4	799.9	863.0	931.1
Total	4,167.1	4,778.4	5,155.3	5,562.0	6,000.7

the ten percent vacancy rate, we arrive at a balance of 3.4 million square feet of neighborhood and community-oriented space. It appears that, overall, the pace of development has kept up with growth in local demand.

5. The presence of local-serving, as well as regional and subregional space, serve both area residents and the regional market well with a broad range of outlets:

- a. While it is estimated that 788,600 square feet of merchandise can be supported by planning area purchasing power, there are over 1,270,000 square feet of regular department stores in the Central City and Inland Center malls alone, which draw support from the regional market as well.
- b. Indicated purchasing power would support 227,900 square feet of apparel outlets; there are currently over 350,000 square feet of such outlets in the two regional malls and major freestanding apparel outlets (i.e., Marshalls and Miller's Outpost), alone.
- c. Existing purchasing power indicates support for 570,900 square feet of food stores. Currently, there are 15 major chain grocery stores and one under construction, totaling approximately 420,000 square feet. In addition, large discount stores such as the Buyers Club, Pace Club, and Fed Co offer groceries. There are, of course, numerous convenience and specialty stores in the planning area.
- d. Indicated purchasing power would support 120,400 square feet of drugstores. Approximately 56,000 square feet of drugstores have been identified in the City. It is estimated that supermarkets, which increasingly carry drugstore items, currently satisfy this demand.
- e. Purchasing power can support 516,500 square feet of automotive-related sales. There are approximately 704,000 square feet of automotive-related space in San Bernardino, including auto supply outlets and new and used car dealerships. Eight of the thirteen major new car dealerships in the planning area are located on "E" Street.

Four dealerships now operate in the City's new Auto Plaza located west of, and adjacent to I-215 Freeway, and just north of I-10 Freeway. The development incorporates thirteen parcels. An additional five have received City approvals to build facilities there.

- f. Existing purchasing power indicates support for 465,800 square feet of eating and drinking establishments. The City inventory identifies approximately 650,000 square feet of restaurants, bars, and fast food outlets. There are also about 33,000 square feet of eating and drinking establishments in the two regional malls which results in about 683,000 square feet of space for this retail category.

6. Current purchasing power was estimated for the Primary and Secondary Regional market Area as supporting 2.3 million square feet of regional mall space in San Bernardino. This compares to the existing 1.89 million square feet in the Central City and Inland Center Malls and 541,000 of subregional space or a total of 2.4 million square feet. The pace of regional retail development appears to have kept up with growth in regional demand.
7. The purchasing power of planning area residents was projected through the year 2010 and translated into supportable square footage, and shown in Table 20. Total purchasing power is expected to increase by 1.5 percent annually or 44 percent by the year 2010, supporting 6.0 million square feet of which 4.8 million square feet are neighborhood and community serving. Given the current existing base of 3.6 million square feet, an additional 1.2 million square feet of neighborhood and community retail space will be in demand by 2010. Assuming an average lot coverage ratio of 25 percent, a total of 110 acres will be absorbed to support this demand, an average of 5 acres per year. The Land Use Map adequately provides for this demand by designating 599 acres for local-serving general and neighborhood commercial retail activity.
8. The purchasing power of the Primary and Secondary Regional Market Area was also projected through 2010 as shown in Table 21. As mentioned above, the planned regional mall in Rancho Cucamonga is expected to impact the scope of the Primary Market Area. Given an estimated opening date of 1992, projections starting in that year are based on a somewhat smaller market area. An estimated 4.6 million square feet of supportable regional space is projected by 2010. Adjustments for current regional and subregional space indicates an additional 2.2 million square feet will be in demand. Assuming an average lot coverage ratio of 30 percent, a total of 168 acres will be absorbed to support this demand.

The location of regional activity is extremely competitive as there are usually several viable sites within a regional market. The planning area will most likely capture a share of the projected market increase through expansion of the existing regional malls and additional highway-oriented outlets, requiring up to 76 acres. The Land Use Map adequately provides for this demand by designating 101 acres for regional commercial activity.

B. OFFICE ACTIVITY

1. The San Bernardino-Riverside office market is concentrated along the I-10 Freeway and SR 60 corridor and has approximately 7,560,207 square feet of existing office space, according to the major office brokerage firms in the area. This does not include government buildings. Local commercial realtors disaggregate this market into three sub-markets: The City of Riverside area, Ontario/Rancho Cucamonga, and the City of San Bernardino area. The distribution of office space among these areas, as of December 1986, is as follows:

TABLE 20

NET SUPPORTABLE REGIONAL SPACE
FOR COMBINED MARKET AREAS (In Square Feet of GLA)

Retail Category	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2010
Shopper Goods															
Apparel	298,884	309,200	326,731	332,692	345,099	305,497	316,888	328,784	340,960	353,674	366,861	388,540	394,729	409,448	590,463
General Merchandise	1,106,732	1,148,005	1,190,817	1,235,225	1,281,290	1,134,256	1,176,549	1,220,418	1,265,924	1,313,126	1,362,089	1,412,877	1,465,560	1,520,206	2,192,282
Furniture, Appliances	134,542	139,546	144,736	150,120	155,703	138,590	143,742	149,085	154,627	160,376	166,338	172,521	178,935	185,587	267,351
Specialty	666,870	691,737	717,532	744,289	772,043	683,548	709,033	735,468	762,889	791,333	820,837	851,441	883,187	916,116	1,321,088
Subtotal	2,206,228	2,288,488	2,373,816	2,462,325	2,554,135	2,261,892	2,346,212	2,433,676	2,524,401	2,618,508	2,716,124	2,817,380	2,922,410	3,031,357	4,371,184
Convenience Goods															
Drug	10,622	11,017	11,427	11,853	12,294	10,927	11,333	11,755	12,192	12,646	13,116	13,684	14,111	14,636	21,889
Food (Supermarkets, etc.)	73,096	75,820	78,646	81,578	84,619	74,985	77,779	80,678	83,684	86,803	90,038	93,393	96,873	100,483	144,878
Packaged Liquor	2,622	2,720	2,821	2,926	3,035	2,698	2,798	2,902	3,018	3,122	3,238	3,359	3,484	3,613	5,207
Eating and Drinking	42,164	43,736	45,366	47,057	48,811	43,254	44,866	46,538	48,272	50,071	51,937	53,872	55,880	57,962	83,578
Subtotal	128,504	133,293	138,261	143,414	148,758	131,863	136,776	141,872	147,158	152,641	158,329	164,228	170,347	176,694	254,744
Other															
Grand Total	2,334,732	2,421,781	2,512,076	2,605,739	2,702,894	2,393,755	2,482,988	2,575,548	2,671,559	2,771,150	2,874,453	2,981,608	3,092,758	3,208,051	4,625,928

TABLE 21

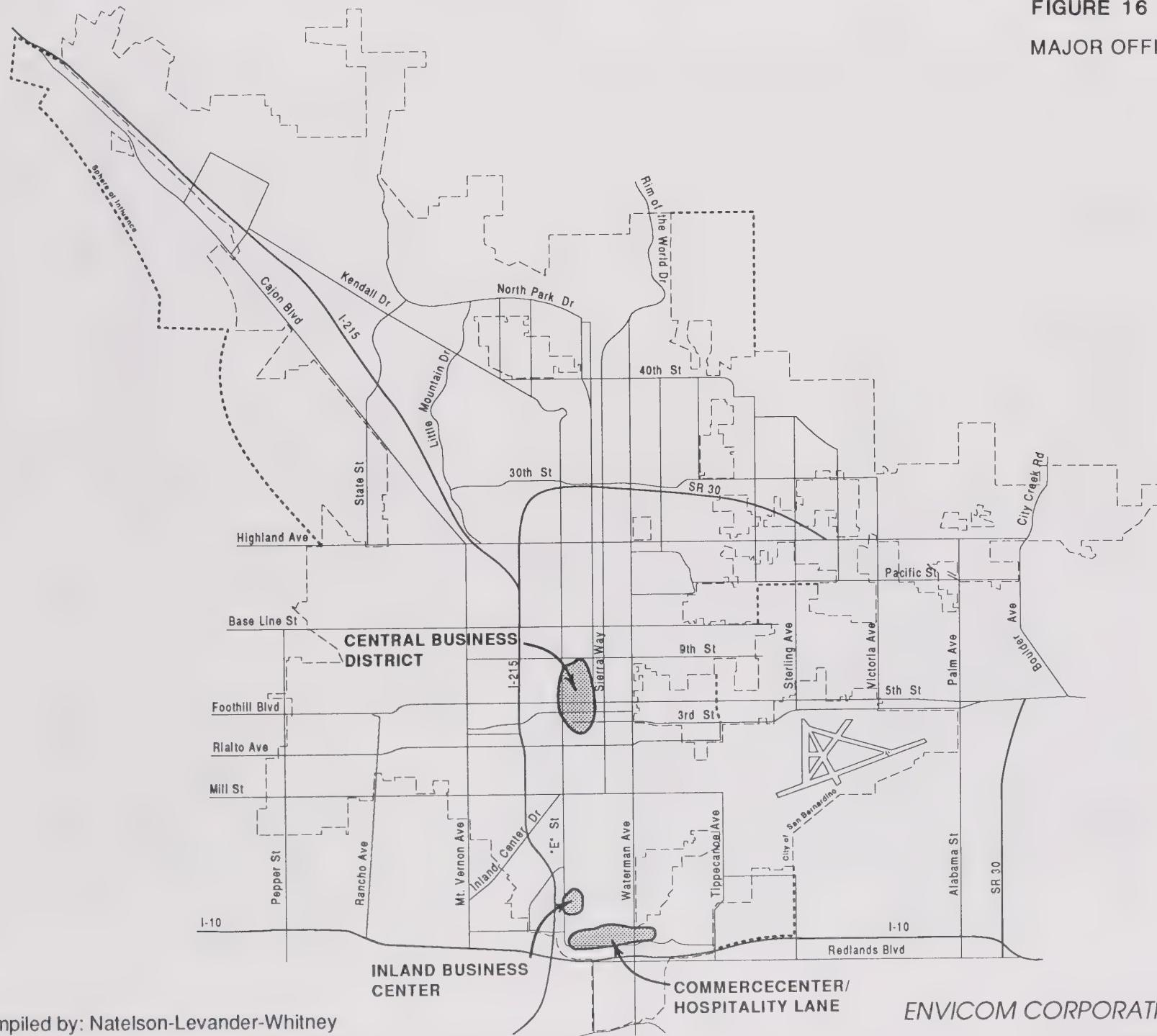
TOTAL POTENTIAL CAPTURE OF DEMAND FOR RETAIL SALES, COMBINED MARKET AREAS

(1987 Constant \$000's) Retail Category	Year 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2010
Shopper Goods															
Apparel	59,617	61,840	64,146	66,538	69,820	61,099	63,378	65,741	68,192	70,735	73,372	76,188	78,946	81,890	118,093
General Merchandise	166,010	172,201	178,622	185,284	192,194	170,138	176,482	183,863	189,889	196,969	204,313	211,932	219,834	228,831	328,842
Furniture, Appliances	16,818	17,443	18,092	18,765	19,463	17,324	17,968	18,636	19,328	20,047	20,792	21,565	22,367	23,198	33,419
Specialty	133,374	138,347	143,506	148,858	154,409	136,718	141,807	147,094	152,578	158,267	164,167	170,288	176,637	183,223	264,218
Subtotal	375,818	389,831	404,367	419,445	435,885	385,271	399,634	414,533	429,987	446,817	462,645	479,893	497,784	516,342	744,571
Convenience Goods															
Drug	1,859	1,928	2,000	2,074	2,151	1,912	1,983	2,057	2,134	2,213	2,295	2,381	2,469	2,561	3,691
Food (Supermarkets, etc.)	25,583	26,537	27,526	28,552	29,617	26,245	27,223	28,237	29,289	30,381	31,513	32,688	33,906	35,169	50,707
Packaged Liquor	590	612	635	658	683	607	630	653	677	702	729	756	784	813	1,171
Eating and Drinking	10,541	10,934	11,341	11,764	12,203	10,813	11,216	11,634	12,068	12,518	12,984	13,468	13,970	14,491	20,893
Subtotal	38,573	40,011	41,502	43,049	44,654	39,577	41,052	42,582	44,168	45,814	47,521	49,292	51,129	53,034	76,462
Other	0														
Grand Total	414,392	429,842	445,869	462,494	479,738	424,849	440,686	457,115	474,155	491,831	518,166	529,185	548,913	569,376	821,033

<u>Area</u>	Total Base (S.F.)	Percent of Market	Selected Vacancy Rate of Non-Government Space
Planning Area	1,998,488	26	31.5
Redlands	92,432	1	62.5
Colton	369,234	5	27.3
Riverside/Corona	2,656,476	35	18.6
Rancho Cucamonga	964,924	14	40.6
Ontario	710,060	9	66.7
Others	768,593	10	31.6
Total	7,560,207	100	31.6% (weighted average)

2. The majority of office users in the San Bernardino/Riverside market include business services (about 14 percent) and finance/insurance/real estate firms (about 39 percent), according to Coldwell Banker Commercial Real Estate in Riverside. It is estimated that over 50 percent of office users in the planning area itself are FIRE firms.
3. Total existing office space, including government buildings, in the planning area total 2,738,191 square feet. Government office space comprises about 536,000 square feet, or approximately 20 percent of the total planning area office inventory. Of this total inventory, 630,970 are available (unoccupied), resulting in an overall vacancy rate of 23 percent. (This includes government office space.)
4. Examination of occupancy rates for buildings constructed between 1985 and 1987 in the planning area, suggest an average annual absorption rate of approximately 60,000 per year.
5. Office space within the planning area is concentrated in three major areas as shown in Figure 16.
 - a. The Central Business District (CBD) is the seat of County and City government, as well as some State Government and private offices. We estimate that approximately 1.55 million square feet of office space are located in the CBD, about 57 percent of the planning area's office space.

FIGURE 16
MAJOR OFFICE CONCENTRATIONS



Compiled by: Natelson-Levander-Whitney

ENVICOM CORPORATION N 0 3000 ft

9000 ft

- b. The Inland Center and adjacent area is located between South "E" Street and the San Bernardino Public Golf Course, just north of the I-10 Freeway (see Figure 16). This concentration is comprised of approximately 48,465 square feet of multi-tenant office space. This represents about two percent of the planning area's office space inventory.
 - c. The Tri-City Corporate/Commerce Center area is situated south of the Santa Ana River, just east of the I-215 Freeway. This area is located within the San Bernardino Redevelopment Agency's Tri-City and Southeast Industrial Park project areas. The office concentration comprises approximately 42 percent of San Bernardino's existing inventory of office space, or 1.14 million square feet. Tri-City Corporate Center currently contains about 22 percent (252,737 square feet) of the space in this concentration.
6. San Bernardino has, on average, the lowest asking lease rates in the San Bernardino/Riverside office market. The following table, based on discussions with several local commercial brokers, presents average monthly rents per square foot in the sub-market areas. Class A includes the newer space in desirable locations while Class B includes all other office space.

<u>Sub-Market</u>	<u>Class A</u>	<u>Class B</u>	<u>Range</u>
San Bernardino	1.25-1.50	0.90-1.75	0.90-1.50
Riverside	1.40-1.85	1.00-1.35	1.00-1.85
Rancho Cucamonga/Ontario	1.40-1.00	1.00-1.35	1.00-1.75

7. Office space construction patterns from 1960 to 1987 in the planning area were identified based on City building permit data and supported by discussions with several building owners and commercial brokers. These trends are presented as follows:

**Office Construction (Non-Government) 1960-1987
(In Square Feet)**

	<u>1960-1969</u>	<u>1970-1979</u>	<u>1980-1985</u>	<u>1986-1987</u>
Total	249,000	539,000	808,500	386,400
Average	24,900	53,900	134,800	193,200

The preceding table reveals a 441 percent increase in average annual office space construction between the 1960s and the first six years of this decade. Average annual office construction from 1980 to 1985 increased by approximately 150 percent over the preceding decade, from 53,900 to 134,800 square feet per year. Average annual new office construction (as of November, 1987) was about 193,200 square feet per year during 1986 and 1987.

8. Demand for commercial office space was estimated for the San Bernardino planning area based on documented average per capita figures for the three types of offices in the five-county region: financial, medical, and general. These regional per capita estimates are factored by income differentials and applied to the planning area population.

It is estimated that 1,250,000 square feet of office space are currently supportable by the planning area population of 195,256 persons.

There are currently 2,738,191 square feet of existing office space in the planning area. Approximately 536,000 square feet of office space are used by government agencies. This leaves a balance of approximately 2,202,191 square feet of private office space. There are currently 630,970 square feet of vacant private office space in the planning area, with approximately 1,571,000 square feet of occupied office space. This can be compared to the estimated 1987 planning area demand for office space of 1,250,000 square feet. It appears that approximately 321,000 square feet of non-governmental office space within the planning area are being supported by non-residents.

9. Office demand was also estimated for the balance of the Riverside-San Bernardino office market, excluding the planning area. Based on the consultant's economic market analysis, it is estimated that the market population can currently support approximately 4.2 million square feet of office space. The 321,000 square feet of office space now being supported by non-planning area residents represents about 4.8 percent of this Riverside-San Bernardino market area demand for office space. Current activity is addressing this ability to capture regional demand. For example, the Tri-City Corporate Center near the intersection of I-10 and I-215 Freeways, is being marketed as a regional office center. A phased development, approximately 252,000 square feet of the Center have just opened and are the focus of an active leasing program.
10. Based on past activity in the planning area and the increasing rate of activity in the Inland Region, it is estimated that an additional 2.5 million square feet of non-government office space will be constructed by the year 2010. While it is estimated that San Bernardino and Riverside Counties will capture 34 percent of the population growth in Southern California in this decade, these counties are expected to capture 42 percent of the growth from 1990 to 2010. San Bernardino County alone will capture 23 percent of the growth by 2010, compared to 19 percent in the 1980s and 14 percent in the 70s. In addition to the population growth over the next 22 years, the Inland Region will take an even stronger role in the next 22 years, as it captures a larger share of residents now commuting to Los Angeles and Orange Counties. Given these growth trends, the planning area's projected population growth of 42 percent by 2010, and the strength of the Hospitality Lane Area, and accounting for

increased competition amongst office locations within the Inland Region, it is estimated that the non-government office supply in the planning area will increase by a factor of two for an additional 2.5 million square feet.

The average annual increment resulting from 2.5 million square feet of office space during the period 1988 through 2010 is about 113,600 square feet per year.

Assuming an average of no more than three stories and a lot coverage of 45 percent, annual absorption of land is estimated at almost two acres per year or 43 acres between 1988 and 2010. The Land Use Map adequately provides for this demand by designating 318 acres for commercial and government office activity.

C. INDUSTRIAL ACTIVITY

1. Examination of industrial permit valuations for San Bernardino County and the six-county region for the year 1980 through 1986 indicates that industrial activity in San Bernardino County overtook its pre-recessionary peak in 1984, earlier than the region. Furthermore, total permit valuations in 1984 year were 225 percent of that in 1979, while the County experienced a recovery at only 16 percent of 1979 activity. In 1986, industrial permit valuation in San Bernardino County, \$250 million, was second highest in the region after Los Angeles County. San Bernardino County has maintained second or third place position since 1984. Prior to that, San Bernardino was fourth or fifth in the region. Between 1980 and 1983, industrial building permit valuation in San Bernardino County represented 7.5 percent of regional activity, while County valuation between 1984 and 1986 represented 16 percent of the region.
2. In 1986, industrial permit valuation in the City of San Bernardino was \$10.7 million. The City has accounted for approximately 3 percent of all industrial permit valuation in the County between 1980 and 1986. Although the total valuation almost doubled between 1984 and 1986 over the total from 1980 to 1983, the City's share decreased slightly from 4 percent to 3 percent. This slight decrease in relative size was due to major industrial activity in Ontario at the old Speedway and near the Airport. However, it should be noted that this decrease is negligible compared to the substantial increase in relative size of Ontario's permit valuation (30 percent to 46 percent). Due to its strong growth in permit valuation, the City of San Bernardino was able to maintain a relatively stable share of activity.
3. Industrial space in San Bernardino and Riverside Counties is concentrated along the I-10 Freeway/SR 60 corridor from the Los Angeles County line east to the vicinity of the planning area, and along SR 91 from the Orange County line northeast to the I-215 Freeway in the vicinity of the planning area. The planning area is clearly on the eastern edge of this industrial market area and furthest from Los Angeles and Orange Counties. According to major industrial brokerage firms in this area, the

current inventory of industrial space in this market is approximately 73.2 million square feet. The planning area has about 8.4 million square feet or 11 percent of the total. The distribution of existing industrial space within this area is as follows:

<u>Area</u>	<u>Industrial Base (SF)</u>	<u>Share of Market</u>	<u>Vacancy Rate</u>
San Bernardino Planning Area	8,400,000	11.4%	6.9%
Colton	200,000	0.3	5.2
City of Riverside	12,190,000	16.6	8.5
Rancho Cucamonga	12,892,000	17.6	11.2
Ontario	18,481,000	25.2	15.0
Corona	5,339,000	7.3	26.6
Fontana/Rialto	12,133,000	16.5	6.0
Chino	3,767,000	56.1	10.9
Total	73,402,000	100.0%	11.5%

4. The planning area's eastern location relative to the other industrial activity in the area is reflected in land prices. As shown below, industrial land prices in San Bernardino and Riverside Counties are lower than in the neighboring counties of Orange and Los Angeles. Within the San Bernardino and Riverside area, land prices decrease to the east. Industrial land prices in the planning area are among the lowest of all prices in the market area.

Industrial Land Prices Price Per Square Foot With Infrastructure

<u>Area</u>	<u>\$/SF</u>
San Bernardino Planning Area	2.75-3.25
City of Riverside	3.00-6.00
Ontario/Rancho Cucamonga	3.75-7.00
Corona	4.50-6.50
Fontana/Rialto	2.50-3.50
Los Angeles County	6.00-12.00
Orange County	5.50-7.50

5. Distance from the major regional population and business concentrations in Los Angeles and Orange Counties is the primary factor that distinguishes the planning area from industrial area to the west. Otherwise, the planning area offers many competitive advantages such as access to a multi-modal transportation network: the Santa Fe, Union Pacific, and Southern Pacific Railroads that provides regularly scheduled service, with reciprocal switching agreements between all three railroads. Moreover, all major truck freight lines have terminals in the greater San Bernardino

area. The Ontario International Airport is approximately 20 miles west of the City and provides 24-hour freight and passenger service. Finally, San Bernardino is situated at the intersection of two major Interstate Highways, I-10 and I-215.

6. Figure 17 presents the major industrial concentrations within the City or San Bernardino. To the northwest, there are two significant industrial clusters situated between Santa Fe and Union Pacific rail lines as well as the I-215 Freeway. One concentration is located within the 1,500-acre Northwest Redevelopment Project Area, of which 500 acres are zoned for industry. Permitted land use in the area ranges from light to heavy industry. Figure 17 also identifies the State College Industrial Park area, located in the State College Redevelopment Project Area. Approximately 350 acres in the northwest sector of this project area are designated for industrial park development.

A major industrial concentration is located in the vicinity of the Santa Fe Railroad yards between Mill Street and Rialto Avenue (refer to Figure 17).

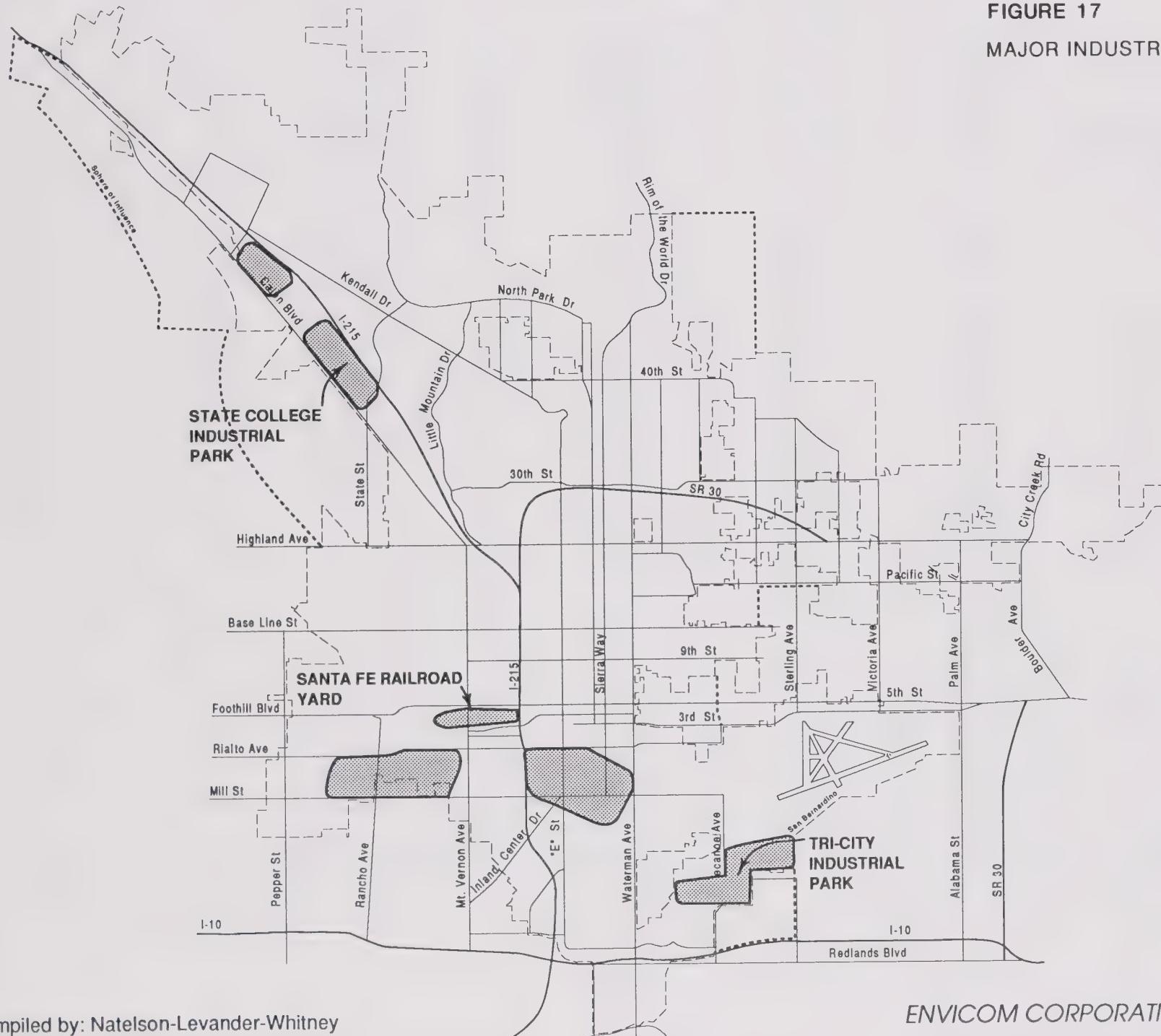
Just east of I-215 Freeway, generally situated south of Rialto Avenue and north of Mill Street, between the Freeway and Sierra Way is another major San Bernardino industrial concentration. Also included in this concentration is the industrial cluster located along Central and Lugo Avenues between Arrowhead and Waterman Avenues (represented in Figure 17). This concentration consists primarily of light industrial uses. A portion of the northwest area of this concentration is within the Central City South Redevelopment Project Area.

The final industrial concentration identified in Figure 17 is in and around the Tri-City Industrial Park area. A portion of this area is part of Sub-Area II of the Tri-City Redevelopment Project Area which provides for up to 180 acres of light industrial activity.

7. Several factors influence future industrial land absorption in the planning area: recent strong growth, low land prices and competitive available land to the west. While the planning area now has low land prices, there is vacant land to the west that differs only very slightly in price. Industrial growth in San Bernardino and Riverside Counties has grown as an extension of major markets in Los Angeles and Orange Counties. This has served to make land closer to these major markets more attractive to industrial users. At the same time, the Inland Empire is developing as separate, although still smaller market.

The recent average annual growth of 19 acres per year is expected to continue until 1990. As interest focuses in the Fontana and Rialto area to the west, land prices will begin to rise, increasing development interest east of these areas. It is estimated that between 1990 and 1995, the average annual absorption of industrial space will increase approximately 30 percent to 25 acres per year. Subsequent annual average absorption will increase by an additional 30 percent to 32 acres per year, applicable through 2010. This is summarized as follows:

FIGURE 17
MAJOR INDUSTRIAL CONCENTRATIONS



	<u>Annual Average Acreage Absorption</u>	<u>Total Acres Absorbed</u>
1988-1989	19	38
1990-1995	25	150
1996-2010	32	<u>480</u>
		668
Annual Average 1988-2010	30	

The Land Use Map adequately provides for this demand by designating 2,053 acres for industrial activity (excluding mineral resource extraction industries).

D. HOTEL ACTIVITY

1. According to surveys completed by the consultants, there are a total of 61 hotels and motels in the Central San Bernardino County Area (the planning area, Loma Linda, Redlands and Colton). These facilities represent a combined total of nearly 3,000 rooms.
2. As shown in Table 22, nearly 87 percent of the existing facilities are small-scale, with less than 100 rooms in the establishment. Just over 11 percent of the total inventory have between 100 and 199 rooms. Only 1 percent of the inventory has over 200 rooms.
3. Facilities with over 100 rooms cater primarily to business and tourism. Approximately one-half of these facilities were constructed within the last 10 years.
4. The overall annual occupancy rates for the competitive inventory is estimated at just over 70 percent. Budget hotels (those with single room rates of less than \$40 per night) dominated the survey as only the Inland Empire Hilton, the Best Western in Redlands, and La Quinta Motor Inn had rates over \$40. Occupancy rates vary only slightly between hotels with rates under \$40 and rates over \$40, 70 percent and 74 percent, respectively.
5. Larger facilities (those with over 100 rooms) experience high occupancy rates of nearly 81 percent. Smaller facilities (those with under 100 rooms) experienced occupancy rates of 65 percent.

TABLE 22

Size Distribution of Existing Hotel-Motel
Facilities in Planning Area and Vicinity

<u>Size</u>	<u>Number of Facilities</u>	<u>Percent of Total</u>	<u>Number of Rooms</u>	<u>Percent of Total</u>
I. Planning Area				
Under 20 Rooms	10	23.26%	114	5.17%
20-39 Rooms	13	30.23%	369	16.74%
40-99 Rooms	13	30.23%	735	33.35%
100-199 Rooms	6	13.95%	741	33.62%
200+ Rooms	1	2.33%	245	11.12%
All Facilities	43	100.0%	2,204	100.0%
II. Planning Area, Colton, Loma Linda, Redlands				
Under 20 Rooms	15	24.59%	179	6.47%
20-39 Rooms	16	26.23%	445	15.23%
40-99 Rooms	22	36.07%	1,275	41.12%
100-199 Rooms	7	11.48%	841	28.79%
200+ Rooms	1	1.64%	245	8.39%
All Facilities	61	100.0%	2,985	100.0%

Source: Natelson, Levander, Whitney, Inc. field survey.

6. Given the projected expansion of the Inland Empire economy and the continued popularity of Southern California as a destination for recreation and tourist activities, the demand for hotel-motel facilities is projected to increase in the future at rates comparable to those experienced during the last 15 years.
7. Table 23 provides an analytical overview of the residual demand for hotel and motel facilities. Currently, there is a competitive inventory of 2,985 rooms with an overall 71 percent occupancy rate, whereas an occupancy rate of 70 percent is the acceptable break-even level under normal hotel measurement criteria. Thus, if the same number of rooms that are now in demand were in a market with an occupancy rate of 70 percent, the total inventory would be 2,998, 13 more rooms than currently exist. Therefore, there is an estimated under-supply of 13 rooms.

Given that the absorption rate is projected to continue at 95 rooms a year, the market could support an additional 2,280 rooms over the next 24 years. Including the current under-supply, a total of 2,293 rooms could be absorbed into the inventory over the next 24 years.

Of the total 2,293 rooms that may be absorbed by 2010, 946 rooms are either planned or under construction. This analysis suggests that approximately 1,321 additional rooms that can be supported in the Central San Bernardino market over the next 24 years have not yet been planned or proposed.

8. Currently, the planning area has three-quarters of the existing hotel supply in Central San Bernardino and approximately 60 percent of the planned and proposed supply. Assuming a sustained continued capture of future activity, it is estimated that an additional 1,010 rooms, not currently planned, will be built within the planning area by the year 2010. Including the 557 rooms currently planned but not yet constructed, a total of 1,567 additional rooms are projected to be constructed in the planning area by 2010. Approximately 32 acres will be absorbed for this use in average increments of three to six acres. The Land Use map adequately provides for this demand by designating 101 acres for regional commercial activity (44 acres more are required for regional retail activity).

E. ISSUES

1. Previous regional forecasts, projected that the planning area population would grow from 195,256 to 276,870 by 2010, a 42 percent increase over the 1987 population. However, this was a reflection of growth trends of the time and did not account for environmental constraints and infrastructure capacities. The Plan's population capacity is 70,300. The planning area's share of the County population will, however, decrease slightly due to the high growth rates of other, small cities. Residential development, particularly single-family homes, represents a net drain on City funds in that the cost of services such as police, fire, city administration, etc., is more than revenue derived from the residents' property tax, sales tax, and fees.

TABLE 23

Demand Projections for Hotel and Motel Facilities
in Central San Bernardino County Area

Total Rooms in Competitive Inventory	2,985
Current Occupancy Rate	71%
Rooms Currently in Demand	2,104
Total Supportable Inventory at 70% Occupancy	2,998
Current Inventory	2,985
Current Under-supply	13
Rooms now under construction/Ready to break ground	418
Rooms in Approval Process	420
Rooms Under Construction	108
Total Number of Rooms Planned/Proposed	946
Annual Room Absorption Rate, 1972-1986	95
Annual Room Absorption Rate, 1987-2010	95
Projected Absorption, Next 24 Years	2,280
Current Under-supply	13
Total Potential Supply, Next 24 Years	2,293
Total Residual to be fulfilled by additional facilities	1,347

Source: Natelson, Levander, Whitney, Inc. field survey.

2. The total demand for retail goods in the planning area appears to be well-served. However, the geographic distribution of retail activity within the area is uneven. For example, neither the Northwest, Southeast, or Southwest neighborhoods have a major supermarket and the supermarkets in the State College/Verdemont area are concentrated towards the southeast away from new development. Much of the retail areas of the former three neighborhoods are blighted, while retail activity in the near sections of State College/Verdemont will most likely increase as residential density increases.
3. The two regional shopping malls, Central City Mall and Inland Center, now serve a larger and growing market area extending beyond the planning area. This larger market is served by highway-oriented outlets such as the "Clubs" on Redlands Boulevard. Given the existing regional activity, the planning area has a strong base from which to expand. However, the exact location of regional-serving space within the regional market is highly competitive. The planning area has the greatest potential for increasing its regional activity through expansion of existing malls and through additional highway-oriented tenants.
4. The planning area now has 26 percent of the non-government office space in the region, serving both the needs of the local population and a portion of regional demand. In addition, downtown San Bernardino hosts City, County and State government offices. While almost 58 percent of all planning area office space is downtown, only 21 percent of construction within the last two years has taken place downtown. Further, while one-third of the space downtown is for public government use, none of the recent construction has been by the public sector. New areas, such as the Tri-City Redevelopment Area and Inland Center, compete effectively with other office concentration in the region due to large parcels of vacant land and proximity to I-10 Freeway.
5. The planning area is located on the eastern edge of an industrial market extending from Los Angeles and Orange Counties. Proximity to these major markets, freeways, and low land prices, as well as the growth in local markets, have been the incentives for development of the Inland region. The planning area now offers among the lowest industrial land prices, as Inland markets to the west experience development pressures from industrial and other activities. Land prices will most likely remain low in the planning area in relation to competitive markets, and development interest will begin to increase over the next several years.

OVERVIEW OF ECONOMIC DEVELOPMENT GOALS, POLICIES, AND OBJECTIVES

The goals, objectives, and policies of the Economic Development Element are intended to strengthen and expand, over the next two decades, the role of the City of San Bernardino as a regional center for economic and cultural activity and to ensure an ongoing high quality of life for City residents by providing an appropriate mix of local- and regional-serving activities.

In earlier years, San Bernardino was the principal center of commerce, employment, service, and culture of the southeastern California area. It now shares the distinction of regional center with other competitive centers. To recapture the role as predominant regional center, economic development policies will provide specific direction and identify specific programs for the purpose of strengthening and expanding existing activity, and encouraging new activity. Activities that are addressed by these policies include retail, industrial, corporate and professional offices, visitor- and convention-serving, governmental, educational, cultural and other related uses. All of these activities are job-generating and/or enhance the quality of life and provide opportunities for City residents while, at the same time, serving the region.

The nature of the market opportunities and the activity that is driving growth in San Bernardino are described below:

- A. A high capture rate for most retail categories. This high capture rate is illustrated by comparison of per capita taxable sales in San Bernardino to regional per capita figures. For example, the per capita expenditure in San Bernardino for apparel is \$423 versus \$278 on a regional basis. Per capita expenditure for general merchandise in San Bernardino is \$1,996 compared to \$646 on a regional level. Apparel and general merchandise are items traditionally located in regional shopping centers. These high expenditures in San Bernardino for apparel and general merchandise reflect the presence of the Central City Mall and Inland Center, as well as the Club Area. A similar pattern is found in per capita expenditures for home furnishings and appliances, and for building materials. The per capita expenditure in San Bernardino for home furnishings/appliances is \$605 compared to \$259 in the larger region. San Bernardino's Freeway Home Center, along with other major furniture chains in the City, such as Ethan Allen, R.B. Furniture, McMahon's and Levitz, draw patrons from adjacent communities as well as from within the City. Expenditures for building materials in the city is \$895 per capita compared to \$422 in the region.

San Bernardino eating/drinking places also demonstrate significantly higher per capita expenditures than the regional norm: \$909 versus \$682. Business activity in the Commerce center area, for example, helps support approximately 80,000 square feet of restaurants along Hospitality Lane's "Restaurant Row". The City's location at the intersection of both State Interstate Highways also provides a means to capture a share of drive-by traffic.

Per capita expenditure for auto dealers and auto supplies in San Bernardino is \$1,636 versus \$1,576 reflects the relatively new Auto Sales Center.

- B. A high profile in the regional office market. This is illustrated by the location in San Bernardino of 20 percent of all regional non-government office space. This office space serves both the needs of the local population and a portion of regional demand and is one of the two largest office concentrations in the Inland Empire. In addition, downtown San Bernardino hosts many City, County, and State government offices.
- C. A competitively advantageous location within the regional industrial market. San Bernardino is located on the eastern edge of an industrial market extending from Los Angeles and Orange Counties. Proximity to these major markets, freeways, and low land prices, as well as the growth in local markets, have been the incentives for development of the Inland region. The planning area now offers among the lowest industrial land prices, as Inland markets to the west experience development pressures from industrial and other activities. Land prices will most likely remain low in the planning area in relation to competitive markets, and development interest will increase over the next several years.
- D. A mix of educational, cultural and visitor/convention facilities. San Bernardino hosts a California State University campus, the Orange Show, a convention center and 75 percent of the existing hotel rooms in the hotel market area. This mix of activity as well as the City's location on two major freeway provides a strong basis from which to intensify these uses and further develop related activities.

The existing market opportunities will be strengthened, and future opportunities captured, if the City follows an overall practice of intensification of existing facilities, areas, and corridors. Such intensification creates points of "critical mass" of economic activity that both build on and protect current successes, while establishing competitively attractive areas in which new development will locate. Specifically, the following will enhance the economic development potential of the City of San Bernardino.

- A. Intensification of downtown San Bernardino with governmental and professional offices, convention facilities, hotels, cultural facilities, supporting retail and restaurants, and high-density residential;
- B. Intensification and upgrading of Central City and Inland Center Malls with new department and ancillary retail stores;
- C. Intensification and introduction of permanent, year-round commercial, and commercial-recreational uses at the National Orange Show site;
- D. Intensification of the Tri-City/Commercenter area with professional and corporate offices, hotels, supporting retail and restaurants, and high-density residential;

- E. Establishment of a "corridor" flanking "E" Street and linking downtown San Bernardino with the Tri-City/Commercenter area in which new major regional-serving uses may be located;
- F. Reuse of the Santa Fe railroad yards, depot, and adjacent properties as a high-intensity mixed-use center, incorporating specialty commercial, industrial, transportation, and related uses and establishment as a linkage to the downtown area;
- G. Possible joint use of Norton Air Force Base for military and aviation-related industrial and commercial uses;
- H. Establishment of a "corridor" containing corporate offices along Waterman Avenue;
- I. Expansion of job-generating industrial uses in the west side (between Foothill Boulevard and Mill Street), southwest of Norton Air Force Base, and northwest along I-215.
- J. Continued development of the California State University campus; and
- K. Flexibility to accommodate other region-serving uses which are compatible with other uses, environmental constraints, and infrastructure capacities.

While residents of the City benefit greatly from regional-serving activity of all types due to job generation, service/outlet availability, and educational and cultural opportunities, local residents have other specific needs that must be met. These needs include high quality neighborhood-scale shopping areas, and stabilized residential areas that are free from encroachment of non-residential activity. Specifically, the following will enhance the economic viability of neighborhoods and neighborhood-serving facilities;

- A. Continuation of existing, and development of new, "village-like" neighborhood commercial centers;
- B. Consolidation of under-utilized commercial strips into more efficient and economically viable centers along portions of Mount Vernon Avenue, Base Line Street, and Highland Avenue;
- C. Establishment of a community "ethnic-themed" commercial center on Mount Vernon, between 4th and 8th Streets; and
- D. Maintenance and enhancement of neighborhood-serving commercial uses;
- E. Increased compatibility between residential and abutting commercial and industrial land uses;
- F. Recycling and upgrading of "mixed-density" and deteriorated residential neighborhoods;

- G. Preservation of existing "stable" and significant residential neighborhood;
- H. Expansion of high quality residential development into the City's hillsides and periphery within the constraints of environmental and infrastructure resources;
- I. Development of higher quality multi-family residential units (architecture, structure, inclusion of site amenities, etc). which are compatible with their neighborhood setting;
- J. Continuation and enhancement of existing and new development of parks, schools, public services, and other community-serving uses uniformly distributed throughout the City.

As indicated above, the current market activity in San Bernardino provides numerous opportunities for the benefit of both regional and local residents. Pursuit of these opportunities involves expansion of current activity, intensification/consolidation of existing active areas and facilities, and development of selected new areas and facilities. The Economic Development Element provides the framework in which to pursue these opportunities, from specifying the long-range goals to detailing specifications to undertake.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for economic development in the City of San Bernardino. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "T" and number in parentheses which refers to the pertinent implementing program.

ISSUE ONE: ECONOMIC DEVELOPMENT OVERVIEW

Goal

It shall be the goal of the City of San Bernardino to:

- 4A Be the principal regional center in the Inland Empire for industrial, commercial, visitor- and convention-serving, governmental, educational, cultural and other related development activity and to have economically viable local-serving commercial activity and neighborhoods.

Objective

It shall be the objective of the City of San Bernardino to:

- 4.1 Generate growth that provides, at a minimum, 27,000 jobs over the next two decades within the context of Goals 4A-4E.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.1.1 Adopt a Land Use Map which designates acreage for industrial, business park, commercial and government activity (I4.1).
- 4.1.2 Initiate strategies to market for, and attract, new activity as defined in the policies for Objectives 4.6 through 4.17 (I4.6-I4.38).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.2 Generate growth that enhances the quality of life.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.2.1 Adopt a Land Use policies which provide for expanded recreational, cultural, and educational opportunities (I4.1).
- 4.2.2 Initiate strategies to provide for new activity as defined in the policies for Objective 4.6 (I4.1, I4.37, I4.38).
- 4.2.3 Minimize and control the development of industrial and other uses which use, store, or produce toxics, air emissions, and other pollutants; establishing mitigation requirements and thresholds above which the use will be prohibited (I4.1, I4.2, I4.3).
- 4.2.4 Limit the location and number of alcohol sales, adult bookstores and businesses, game arcades and other community sensitive uses, based on proximity to residences, schools, religious facilities, and parks, in accordance with legislative requirements (I4.1, I4.2, I4.3).
- 4.2.5 Adopt a development code that provides for "defensible space" in building and space design--space that optimizes the safety and well-being of the users (I4.1).
- 4.2.6 Establish a marketing program to attract developers of upscale housing and assist in the promotion of such housing to potential high income buyers (I4.6, I4.13).
- 4.2.7 Establish a marketing program to promote the economic, social, and physical attributes of the City (I4.8, I4.15).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.3 Generate cumulative growth that provides net fiscal gains to the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.3.1 Determine the need for a fiscal impact analysis as part of the Development Review process. The purpose is to provide input into assessment of overall impact of development activities and to determine what costs to the City, if any, may be subject to mitigation (I4.4).

- 4.3.2 Monitor the fiscal impact of the mix of development proposals and activity on an annual basis to determine which or what kind of activities, if any, should be encouraged or delayed (according to their net positive or negative fiscal impact) over the next time period (I4.5).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.4 Manage overall economic development within the context of Goals 4A-4E through a coordinated strategy for all public agencies and organizations that establishes areas of responsibility of, and coordination between, affected agencies and organizations, and establishes a timeframe in which appropriate steps are to be taken (I.e., first year of strategy, annually, etc.).

Policies

It shall be the policy of the City of San Bernardino to:

- 4.4.1 Examine the feasibility of establishing a single economic development manager to oversee the economic development efforts of all public agencies and organizations to allow for optimum efficiency and productivity in pursuit of Goals 4A-4E (I4.5).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.5 Generate economic growth that is not detrimental to the environment and growth that occurs in such a way as to protect the life and property of residents, businesses, and visitors to the City from the hazards of flood, fire, seismic, and liquefaction.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.5.1 Require adherence to the environmental and resource standards, as defined in the Environmental Resource Management Policies, Seismic Risk Policies, Flood Hazard Policies, Wind and Fire Hazard Policies (I4.1-I4.3).

ISSUE TWO: INDUSTRIAL ACTIVITY

Goal

It shall be the goal of the City of San Bernardino to:

- 4B Generate ongoing industrial growth, in an orderly and controlled manner, through diversification of the industrial base and maintenance of current activity.

Objective

It shall be the objective of the City of San Bernardino to:

- 4.6 Capture, over the next decade, new basic Standard Industrial Classification (SIC) industrial groups not currently represented in the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.6.1 Establish a marketing program to attract new industrial activity (I4.6-I4.13).
- 4.6.2 Pursue joint use of Norton Air Force Base in order to provide opportunities for industrial firms interested or requiring airport proximity or access (I4.14).
- 4.6.3 Seek opportunities for reuse of the railway yards as lands become available in order to provide opportunities for industries/firms requiring rail transportation, transportation-related industries, warehousing, and similar uses and explore opportunities to capitalize on commuter-rail linkages (I4.15).
- 4.6.4 Provide for industrial development in conformance with Land Use Policies 1.32.10 through 1.34.32 (I4.1).
- 4.6.5 Set, and require adherence to, standards for industrial buildings in order to create and maintain an attractive image for San Bernardino (I4.22).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.7 Increase, on an ongoing basis, the number of firms within the existing industrial groupings.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.7.1 Establish a marketing program to attract new firms (I4.16-I4.18, I4.13).
- 4.7.2 Pursue joint use of Norton Air Force Base in order to provide opportunities for industrial firms interested or requiring airport proximity or access (I4.14).
- 4.7.3 Seek opportunities for reuse of the railway yards as lands become available in order to provide opportunities for industries/firms requiring rail transportation, transportation-related industries, warehousing, and similar uses and explore opportunities to capitalize on commuter-rail linkages (I4.15)
- 4.7.4 Where lands are designated for industrial activity--such as along Interstates 10 and 215, the regional opportunities corridors, and the west side--expedite the use of these lands for industrial purposes (I4.5).
- 4.7.5 Provide for industrial development in conformance with Land Use Policies 1.32.10 through 1.34.32 (I4.1).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.8 Maintain the existing industrial base and stabilize the future industrial base.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.8.1 Establish an outreach program to encourage existing firms to remain in San Bernardino (I4.19 and I4.20).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.9 Recruit services (such as printers, freight delivery services, etc.) through start-ups of new firms and relocation to the City of existing firms, in order to provide support for industrial firms.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.9.1 Establish a marketing program to attract business services (I4.21).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.10 Make available sufficient acreage in order to capture the City's fair share of industrial regional growth through the year 2010.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.10.1 Designate land for industrial activity (I4.1).

- 4.10.2 Allocate the land designated for industrial activity among the various kinds of industrial activity--light, heavy, extractive, and business park--along Interstates 10 and 215, along regional opportunities corridors, adjacent to Norton Air Force Base, at and near the railway yard and in the west side for industrial activity (I4.1).

ISSUE THREE: OFFICE COMMERCIAL ACTIVITY

Goal

It shall be the goal of the City of San Bernardino to:

- 4C Be the regional center in the Inland Empire for general, medical and governmental office space to serve regional and local needs.

Objective

It shall be the objective of the City of San Bernardino to:

- 4.11 Attract new office users to San Bernardino, maintain the existing office user base, and stabilize the future office user base.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.11.1 Establish a marketing program to attract new office users and engage in outreach to encourage existing users to remain in San Bernardino (I4.7-I4.9, I4.12-I4.13, I4.19-I4.20, I4.22-I4.23).
- 4.11.2 Establish a marketing program to recruit large-scale professional and government office development to downtown San Bernardino (I4.6, I4.7, I4.34, I4.35).
- 4.11.3 Establish a marketing program to recruit medical office development, with a focus on areas in proximity to existing hospitals and the reuse of these hospitals should they become available (I4.6-8, I4.24, I4.13).
- 4.11.4 Adopt a development code that provides for small office users to locate in existing community-serving commercial corridors throughout the City (I4.1).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.12 Make available sufficient acreage in order for commercial office activity, government office activity, and health care, to keep pace with local population demand and to capture the City's fair share of the regional office and health care market through the year 2010.

Policies

- 4.12.1 Designate land for commercial and government office activity and health care (I4.1).
- 4.12.2 Provide for development of office and health care facilities in accordance with Land Use Policies 1.28.10 through 1.29.32 (I4.1).

ISSUE FOUR: RETAIL COMMERCIAL ACTIVITY

Goal

It shall be the goal of the City of San Bernardino to:

- 4D Maintain and enhance commercial regional cores and economically sound community-serving commercial concentrations.

a. Regional Retail Activity

Objective

It shall be the objective of the City of San Bernardino to:

- 4.13 Attract new regional outlets, maintain the existing regional retail base, and stabilize the future regional retail base.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.13.1 Establish a marketing program to attract new regional retail outlets and engage in outreach to encourage existing outlets to remain in San Bernardino (I4.6-8, I4.19, I4.20, I4.26, I4.27).
- 4.13.2 Renovate and intensify activity at, and in between, the two regional malls to create a single regional cluster (I4.6-8, I4.19, I4.20, I4.26, I4.27).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.14 Make available land for regional commercial in order to capture the City's fair share of regional retail growth through the year 2010.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.14.1 Designate land for regional commercial activity in close proximity to the two existing malls and the "Club" area (I4.1).

b. Local-Serving Activity

Objective

- 4.15 Make land available for new development in, and intensification of, existing local-serving commercial corridors and to establish new commercial areas, as need arises with population growth, along major transportation corridors in proximity to residential neighborhoods.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.15.1 Allow for development and intensification in existing and new local-serving commercial corridors in accordance with Land Use Policies for Land Use Objectives 1.19 through 1.27 (I4.1)

Objective

It shall be the objective of the City of San Bernardino to:

- 4.16 Maintain the economic health of the currently viable local-serving commercial corridors.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.16.1 Establish an outreach program to encourage existing retail outlets to remain at or near their current locations (I4.28, I4.29).
- 4.16.2 Develop programs to maintain an awareness of, viable commercial corridors (I4.29, I4.30).
- 4.16.3 Set, and require adherence to, standards for retail buildings in order to create and maintain an attractive image for each commercial corridor, in conformance with Land Use policies associated with Land Use Objectives 1.19 through 1.27 (I4.1).

Objective

It shall be the objective of the City of San Bernardino to:

- 4.17 Upgrade the economic health of the local-serving commercial corridors that are currently not viable.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.17.1 Establish a marketing program to attract new outlets to these commercial corridors (I4.7, I4.8, I4.30, I4.32).
- 4.17.2 Develop programs to establish an awareness of each commercial corridor in need of economic enhancement (I4.37).

Objectives

It shall be the policy of the City of San Bernardino to:

- 4.18 Make available sufficient acreage to support projected population growth for local-serving general and neighborhood commercial retail activity in order to keep pace with local population demand.

Policies

- 4.18.1 Designate land for local-serving general and neighborhood commercial retail activity (I4.1).

ISSUE FIVE: QUALITY OF LIFE/REGIONAL ATTRACTIONS

Goal

It shall be the goal of the City of San Bernardino to:

- 4E Be the regional center for recreation, cultural, entertainment and educational opportunities.

Objective

It shall be the objective of the City of San Bernardino to:

- 4.19 Enhance, maintain, and develop recreational, cultural, entertainment, and educational facilities.

Policies

It shall be the policy of the City of San Bernardino to:

- 4.19.1 Pursue the continued use and expansion of the National Orange Show facilities as a major regional-serving recreation, entertainment, and cultural use, in conformance with Land Use Policies 1.36.10 through 1.36.30 (I4.1, I4.37).
- 4.19.2 Continue and expand educational, cultural, recreational, and supporting uses at California State University, San Bernardino (I4.37).
- 4.19.3 Provide for a mix of regionally-significant uses in the Tri-City/Commercenter/Club area including entertainment--theaters, night-clubs--restaurants and hotels/motels, in conformance with Land Use Policies 1.17.10 through 1.17.38 (I4.1, I4.38).
- 4.19.4 Provide for a "high activity" sub-area in Downtown San Bernardino, where it is the intent to achieve a high level of evening activity, and encourage the development of uses which can be accommodated in the ground floor of structures to those open in the evening (e.g., theaters, restaurants), in conformance with Land Use Policy 1.16.17 (I4.1, I4.38).
- 4.19.5 Provide for and encourage uses which complement and intensify the Convention Center in downtown San Bernardino, including expanding convention facilities, hotels, restaurants, theaters, and similar uses (I4.1, I4.6, I4.38).
- 4.19.6 Provide for the development and maintenance of parks and recreational trails, in accordance with the Parks and Recreation Element (I4.1).

IMPLEMENTATION PROGRAMS

The following lists are the programs to implement the economic development policies contained in the preceding subsection of the plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

- I4.1 Adopt the Land Use Plan Map and revise the Zoning Ordinance to be consistent with the General Plan, as detailed in Land Use Implementation Program I1.1.
- I4.2 Reevaluate City regulations regarding new development and enlargement of existing structures for their adequacy in providing effective public review and comment, as detailed in Land Use Program I1.6.
- I4.3 Continue to comply with CEQA requirements regarding environmental effects of a project, as detailed in Land Use Program I1.7.
- I4.4 Determine a threshold project size, above which a fiscal impact analysis is required and set fiscal standards which must be met by these projects.
- I4.5 Examine the feasibility of creating a position of economic development manager and formalize the goals of this position, which shall include such activities as the following:
 - a. Undertake a sufficient number of promotional in-person contacts with firms in targeted industries each year, either at their location or hosting them in San Bernardino, to achieve the stated goals and objectives; coordinate these contacts with other active agencies and organizations.
 - b. Initiate at least one meeting with local firms per month in conjunction with other active agencies and organizations and prepare evaluation of permanent records.
 - c. Develop promotional brochure and materials in coordination with other active agencies and organizations.
 - d. Establish procedure for expediting relevant City activities in response to specific development requests.
 - e. Determine the need for, and feasibility of, a non profit corporation created by the City as a vehicle for marketing and other economic development activities.
 - f. Maintain flow of relevant information to all active agencies, departments, and organizations.

- g. Prepare periodic reports to be submitted to the City Council for informational purposes.
 - h. Establish a business retention program to keep industries in the City.
 - i. Monitor the fiscal impacts of development.
- I4.6 Continue to offer a range of assistance programs to firms locating in redevelopment project areas, such as clearance of land and resale to developers, tax increment financing, and special assessment financing, as detailed in Land Use Program I1.12.
- I4.7 Keep all participants, both public agencies and private organizations, informed of possible assistance for desirable projects in the redevelopment project areas, in order to assure that all firms interested in San Bernardino are made aware of the opportunities.
- I4.8 The City should conduct a study to identify potential revenue sources for assistance programs outside of Redevelopment Areas.
- I4.9 Develop a list of target industries for identifying key basic industries currently locating in the San Bernardino-Riverside area but outside of the City, through liaison with real estate brokers, industrial associations, etc.
- I4.10 Include in the list of target industries, those industries that are at the forefront of the economic and technological changes affecting the nation in the years to come such as radio and television communication equipment, aerospace, x-ray and electro-medical equipment, and surgical and medical instruments; these provide a source of stability and growth.
- I4.11 Develop a regional/national/international master list of firms within the target industries to contact in the marketing campaign.
- I4.12 Update list of target industries on an annual basis.
- I4.13 Pursue an aggressive marketing campaign involving mailings to, and personal contact with, firms in the targeted industries to establish and maintain an awareness of available opportunities in San Bernardino, advertise in relevant trade journals and publications.
- I4.14 Participate in a study with the U.S. Air Force/Department of Defense on the feasibility of the joint use of Norton Air Force Base.
- I4.15 Maintain contact with landowners and regional users of railway yards to determine potential availability or recycling of the yards.

- I4.16 Provide for development of light manufacturing in a business park environment, as along Waterman Avenue, such as the Tri-City/Commercenter, in conjunction with Land Use Policies 1.31.10-1.31.34 and 1.32.30-1.32.32, to address locational requirements of a range of industrial firms.
- I4.17 Develop a list of industries currently located within the City through compilation of Redevelopment Agency data and door-to-door survey, and update on an annual basis.
- I4.18 Develop a regional/national/international master list of outside firms within the existing industries to contact in a marketing campaign.
- I4.19 Provide for an ongoing relationship with existing firms to monitor their needs and concerns and to determine which needs and concerns can be addressed by the City.
- I4.20 Maintain an ongoing schedule of public liaison with the existing businesses to ascertain needs and concerns such as land, employees, finances, transportation access, etc.
- I4.21 Identify the need for business support services in San Bernardino through liaison with existing industrial firms and develop a recruitment program to solicit appropriate business service firms.
- I4.22 Develop a list of office users currently located within the City through compilation of Redevelopment Agency data and a door-to-door survey to be updated on an annual basis.
- I4.23 Develop a regional/State master list of outside office users within target industries and existing industries to contact in the marketing campaign.
- I4.24 Develop a regional/State list of outside medical office users to contact in the marketing campaign.
- I4.25 Develop a list of regional retail outlets within the City through compilation of Redevelopment Agency data and a door-to-door survey, to be updated on an annual basis.
- I4.26 Develop a regional/State master list of regional-serving retail outlets now not located in the City, to contact in the marketing campaign.
- I4.27 Pursue an aggressive marketing campaign involving mailings to, and personal contact with, targeted regional retail outlets and mall management to establish and maintain an awareness of available opportunities in San Bernardino.

- I4.28 Work with property owners and tenants to determine land, building and parking requirements for updated facilities and to encourage renovation/expansion at existing locations as an alternative to relocation.
- I4.29 Facilitate the continuation and formation of individual merchants association, such as the Chamber of Commerce and Main Street Program, through City-held meetings; these associations provide the basis to coordinate promotional activities and store hours, address common problems that may arise, and enforce a sense of community and "place." The associations also provide the City a means through which to publicize and coordinate assistance programs and maintain ongoing evaluation of development efforts.
- I4.30 Through the local merchants associations, institute a series of coordinated events such as sidewalk sales, holiday decorations, special night openings, small music events, etc.
- I4.31 Develop a list of community-serving retail outlets now not located in the less viable commercial corridors, to contact in the marketing campaign.
- I4.32 Pursue an aggressive marketing campaign involving mailings to, and personal contact with, targeted community-serving outlets to establish and maintain an awareness of available opportunities in San Bernardino's commercial corridors.
- I4.33 Through the local merchants associations, such as the Chamber of Commerce and the Main Street Program, institute a series of coordinated, promotional events such as a Cinco de Mayo festival, running races, Kid's Day, etc., that will draw City-wide attention.
- I4.34 Maintain ongoing dialogue with State, County, and regional governments to encourage location of new government offices and buildings in Downtown San Bernardino.
- I4.35 Locate all new City office buildings in Downtown San Bernardino, when feasible.
- I4.36 Periodically adjust project permit fees, as needed, to reflect the actual costs of issuance and service by the City.
- I4.37 Continue, or establish where not yet in effect, agreements for inter-agency coordination between the City and other jurisdictions, districts, and government agencies which impact, and are impacted by, land use development in the City, as detailed in Land Use Policy I1.10.

I4.38

Determine the need for a Specific Plan for such areas as a "high-activity" sub-area in Downtown San Bernardino, Tri-City/Commercenter area, "Regional Opportunities Corridor," Mount Vernon "Theme" Center, reuse of the Santa Fe Railroad yards and station, joint use of Norton Air Force Base, Waterman Avenue Business Park Corridor, University "Village" area and Verdemont area, as detailed in Land Use Program I1.4.

5.0 URBAN DESIGN FOR PUBLIC SPACES ELEMENT

INTRODUCTION

California planning law does not mandate the preparation of an urban design element. However, it does permit the formulation and adoption of any element which pertains to issues or objectives which are unique to a city. The visual and physical character of the City of San Bernardino has been repeatedly cited as a significant issue by residents and business persons. Thus, the City has stated its intent to establish goals, objectives, policies, standards, and programs to influence the character of its individual buildings, relationships among buildings, and interconnecting open spaces. Essentially, urban design defines the manner by which individual development projects can fit together into a unified whole. These considerations, as they apply to the development of buildings, are addressed by the Land Use and Urban Design goals, objectives, policies, standards, and programs presented in Section 1.0. The application of urban design policy to public open spaces is defined in this section. Cumulatively, these represent a comprehensive strategy to achieve a high level of urban design performance in the City of San Bernardino.

A. OVERVIEW

The physical and visual character of the San Bernardino planning area determines to a large degree the City's environmental quality of life and image. A significant contributor to that character is the area's built environment; its buildings, open spaces, streets, and infrastructure. These elements and the manner in which they are brought together and linked, referred to as "urban design", in concern with the natural environmental factors, define the image of the City.

B. GEOGRAPHIC AND HISTORIC DETERMINANTS OF THE BUILT ENVIRONMENT

Contextually, the urban form of San Bernardino is defined by its location in the upper Santa Ana River valley framed by the San Bernardino Mountains on the northeast and east, and Blue Mountain and the Box Springs Mountains abutting the Cities of Loma Linda and Redlands to the south. In addition, the mountains of the San Gabriel range and the Jurupa Hills form strong geographic features to the northwest and southwest of the planning area, respectively.

Due to its unique geography, San Bernardino is situated as a gateway to the mountain resorts. This gateway role affects the City's image in subtle ways. Many place and street names (e.g., Highland Avenue, Foothill Boulevard, Base Line Street, Arrowhead Avenue, Piedmont Drive) are derived from the mountainside location. The principal daily newspaper in the planning area, The Sun, features a silhouette of the mountains on its masthead. Freeway exit signs direct motorists to exist leading to "Mountain Resorts". Two other natural conditions complete the definition of the context of the

planning area. The first is the proximity to the Cajon Pass, a major natural gateway to southern California from the high deserts and points east. The second is the area's location at the east end of a long valley system, the Pomona-Upper Santa Ana River Valley. These locational features have a direct effect on the physical environment of the planning area. The historic development of San Bernardino as a transportation hub is directly related to the proximity to the Cajon Pass. The prominence of railroad lines, Santa Fe rail depot, strip- and high-way-oriented commercial development along the former U.S. Route 66, and development of one of the region's early freeways (the current Interstate 215) are all examples of the impact of the Cajon Pass and its importance to transportation systems on the physical development of San Bernardino.

At the same time, the planning area is part of the greater Pomona-Upper Santa Ana River Valley system. As such, the grid system of streets developed early in the City's history area directly connect the planning area to a valley-wide street system that links a string of foothill and valley communities as far west as Pomona (approximately 30 miles). Some of these east-to-west arterials retain the same name through much of the valley (e.g., Base Line Street, Foothill Boulevard, and Highland Avenue).

C. URBAN DESIGN STRUCTURE

The urban design structure of the City is defined by the nature of five elements that make up the physical and visual character of the City. These elements--districts, nodes, landmarks, paths, and edges--were first identified by urban planner Kevin Lynch in the early 1960s. The elements are defined below, and their locations are listed and described. Figure 18 illustrates the existing urban design structure of the planning area.

1. Districts

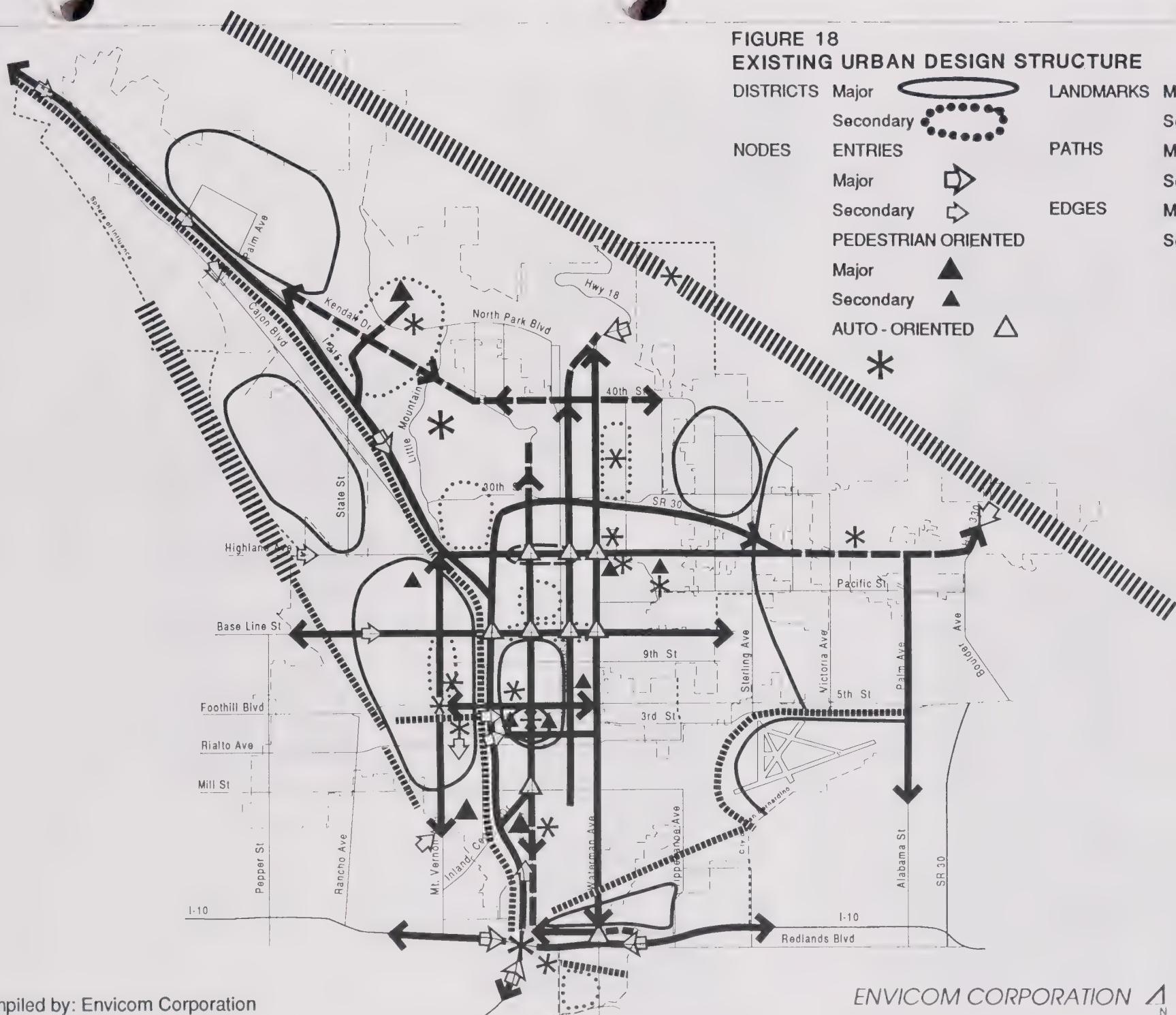
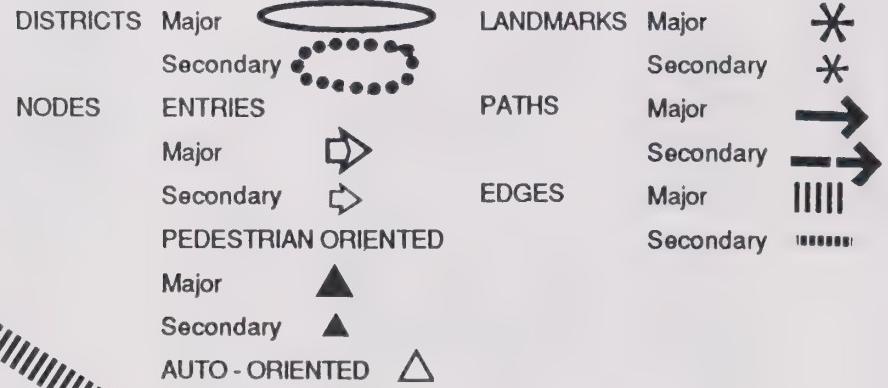
A "district" is defined as a part of a larger urban area which has common distinguishing characteristics and function. It is identifiable as a place distinct from other areas of the community. Once inside a district, a user can distinguish it by physical form, function, or activity from adjacent areas.

San Bernardino is composed of a number of distinct districts. Some of these contain a diversity of uses, while others contain only one use type. The commercial districts are generally of either a regional-serving or community-serving nature. The residential districts are classified as a major or minor, depending on their physical identifiability. Examples of these districts are depicted in Figure 19.

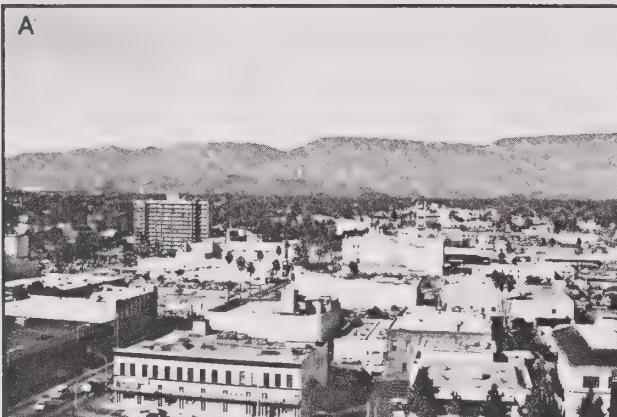
a. Mixed Use Districts

Areas which contain a diversity of uses (e.g., commercial office, commercial retail, residential in various densities, and industrial), yet still maintain an identity distinct from the remainder of the planning area, are known as mixed use districts.

FIGURE 18
EXISTING URBAN DESIGN STRUCTURE



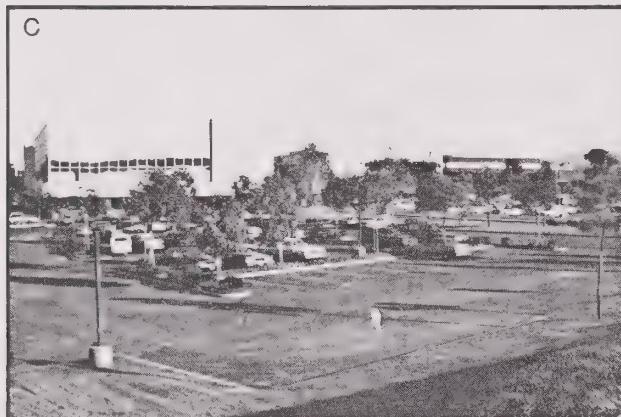
DISTRICTS



Downtown is the best example of a mixed use district, with its variety of building forms and functions.



The Base Line Street commercial strip between Sierra Way and "E" Street is an identifiable commercial district due to the common age and setback character of its buildings.



Hospitality Lane Area - a new look for commercial office districts.



The Muscupiabe residential district, developed in the 1940s.



The Cal State area, a residential district consisting of generous landscaped areas and multi-family housing developments dating from the 1970s.

- (1) Downtown - The historic center of San Bernardino is, as most downtowns, an area of diverse uses and functions that set it apart from more homogeneous sections of the City. It contains government, cultural, retail, office, and a wide range of residential uses. The ages and design styles of downtown buildings vary greatly, as does the scale, landscaping quality, and site coverage from block to block. This general diversity in all aspects of urban design is what makes downtown an identifiable district. It is generally bordered by I-215 Freeway on the west, Base Line Street on the north, Sierra Way on the east, and Rialto Avenue on the south.
- (2) East End (Highland) - The east end includes most of the area east of Sterling Avenue and excludes those portions contained in the recently incorporated City of Highland. Its commercial character is dominated by strip suburban shopping centers along Highland Avenue, but the prominent institutional facility Patton State Hospital also influences Highland's image. Residential development varies in character due to the district's size, but its predominant image is that of 1950s and 1960s tract development interspersed among cleared lots of former orange groves.
- (3) West Side - The west side contains some of the planning area's oldest housing and industrial functions. Generally bordered by I-215 Freeway on the east, Highland Avenue on the north, the Lytle Creek wash on the west, and Mill Street on the south, the west side exhibits a significant ethnic character in its business and residential sub-districts. At the core of the district are land uses that once served travelers along U.S. Route 66 (Mt. Vernon Avenue). Its single major use is the Santa Fe Railroad Passenger Terminal and rail yards.
- (4) Norton Air Force Base - Norton Air Force Base is a self contained military community whose unique function and required security, effectively, isolate it as a major activity island in the greater community. It is bounded on the north by 3rd Street, the west by Lena Road, and the south by Mill Street and Central Avenue. The Base contains a golf course, exchange, military passenger and freight terminals, and housing for military personnel. Its function as a major employer and focus of strategic military operations establishes its importance, but its isolation as a district differentiates it from all other uses within the planning area.

b. Commercial Districts

- (1) Civic Center - The Civic Center area functions as a sub-district of the downtown district. It is comprised of four major components. The first is the Central City Mall, a two-story enclosed shopping mall that is a product of 1960s and 1970s redevelopment. The mall is linked with a pedestrian bridge to the second component, the City Hall, Convention Center, and hotel complex. A block further east is

the commercial office corridor at "D" Street. The fourth component is the County and State government offices at Arrowhead Avenue. The Civic Center district is the focus of the most highly developed streetscape and urban design physical planning in the planning area. This area is located between 4th Street on the north and 2nd Street on the south.

- (2) Highland Avenue and Base Line Street "Strip" Corridors - Highland Avenue and Base Line Street are characterized as typical commercial strip districts composed of a variety of retail uses, some of which were developed in the 1920s. These older commercial corridors generally contain community- and highway-serving commercial facilities. Most structures have been sited directly along the property frontage and side property lines, creating a semi-continuous strip and wall of buildings. The principal concentration of these districts is located between Sierra Way and "E" Street, but both continue to either direction beyond these streets.
- (3) Mt. Vernon Avenue Strip - The Mt. Vernon retail-commercial corridor functions as the principal center on the west side. Formerly U.S. Route 66, it is distinct from those on Highland Avenue and Base Line Street, as it functions as the singular center for the greater west side residential community, within which it is wholly contained. It contains Plaza Park, which serves as a significant open space feature, and its businesses serve the surrounding Hispanic community. Most structures have been sited directly along the property frontage and side property lines, creating a semi-continuous strip and wall of buildings. It is similar in age to the other strip commercial districts, and is bordered by Base Line Street on the north and 5th Street on the south.
- (4) Hospitality Lane Area - The newest of the commercial districts, the Hospitality Lane area represents the single most actively developing district in the planning area. Hospitality is unique in that it contains an island of master planned mixed use in a city that had heretofore developed incrementally. It is bound by "E" Street on the west, Santa Ana River on the north, Tippecanoe Avenue on the east, and the I-10 Freeway on the south. The center is characterized by its mix of uses. Formerly the site of a small airport, the district has developed rapidly since the mid-1970s. It contains restaurants, lodging, and offices which serve a regional market. Waterman Avenue divides the district into two sub-areas; the older portion to the west contains hotels, restaurants, and low-rise office space, whose buildings are often faced in mirrored glass. The newer portion to the east contains a master planned street and landscaping system framing larger scale office developments. Physically, the area has been developed as individual sites with individual buildings surrounded by open space and parking. There are no apparent architectural or pedestrian linkages between individual developments.

c. **Residential Districts**

- (1) Verdemont - The extreme northwest portion of the planning area between Cable and Devil Canyons is a formerly rural, steadily sloping bench lands, with a square

grid system of roads aligned to be parallel and perpendicular with the mountain slope. Many of the roads are unpaved and planted with olive and gum tree windrows. The area has been master planned and is experiencing rapid development with single-family housing, creating a strong image of suburbanization.

- (2) Cal-State Area - Slightly southeast of Verdemont in the California State University district, characterized by the well landscaped and buffered State University campus on the north and a concentration of new high-density housing development focused on the University Parkway/Kendall Drive intersections.
- (3) Arrowhead Suburban Farms - This unincorporated county island northeast of Kendall Drive, east of Western Avenue, and south of North Park Boulevard is distinguished from the surrounding incorporated neighborhoods to the east by its large lots and general lack of curbs, gutters, and sidewalks which lend a semi-rural ambience to this residential district.
- (4) Muscoy - The area north of Highland Avenue and west of I-215 Freeway is an unincorporated part of the San Bernardino planning area, popularly known as Muscoy. It is characterized by a semi-rural character with single-family houses and large (1/4-acre to 1/2-acre) parcels. There are few sidewalks or curbs, and many parcels are used for animal keeping. Several eucalyptus windrows serve as property markers in Muscoy.
- (5) Muscupiabe - This minor residential district is bounded by Highland Avenue on the south, "T" Street on the east, Little Mountain Drive on the west, and Shandin Hills on the north. The unifying element in this single-family neighborhood is the generously-scaled median along Muscupiabe Drive. The well maintained houses were developed in the 1940s. Street tree landscaping complements the Muscupiabe Drive median, which is planted with a double row of pepper trees.
- (6) Arrowhead County Club - This very small strip of large single-family houses is characterized by its location adjacent to the Arrowhead County Club, with its well maintained green space. Planted traffic islands form distinctive intersections along Broadmoor Boulevard.
- (7) Del Rosa - The Del Rosa district is one of the few residential areas that has been traditionally identified as a distinct district on most street maps of the planning area. Its borders are difficult to define due to the continuity of similar uses and structures, but it is centered around the intersection of Del Rosa Avenue and Marshall Boulevard. It is a large area of single-family homes built from the 1940s to the present, generally located in the northeast foothills, centered at Del Rosa Avenue and Marshall Boulevard. The majority of the district is gently sloped with steeper slopes to the north, and has several arterials planted with olive tree wind-breaks. Steep curbs and open storm drainage systems characterize the specialized infrastructure in Del Rosa.

- (8) 17th and 18th Streets - The focal point of a potentially historic district, the 17th/18th Street area between "E" Street and Sierra Way is noted for its architecturally distinctive and large houses developed in the 1920s.
- (9) South Pointe - This compact new single-family district at the extreme south of the planning area is characterized by its physical isolation from the remainder of the planning area and arterial streets (Waterman Avenue, Hunts Lane, and Barton Road) that define its limits. A neighborhood park has transformed a fault line/drainage course into a usable open space resource.

2. Nodes

A node is a strategic focal point in an urban environment that is a junction of movement and activities, such as a public plaza or street intersection. For the purposes of this report, nodes are defined in three categories: (a) "entry nodes" are transition points between adjacent jurisdictions and transportation nodes into San Bernardino; (b) "pedestrian-oriented nodes" are focal points of pedestrian activity; and (c) "auto-oriented nodes" are major intersections within the planning area. Further entry and pedestrian-oriented nodes are differentiated into major and minor categories according to their size, traffic volumes, visibility, and significance.

San Bernardino's nodes are indicated on the Existing Urban Design Structure map (Figure 18) and depicted in Figure 20. The following is a discussion of these areas:

a. Entry Nodes

(1) Major

- Guthrie interchange of I-10 and I-215 Freeways: a major physical and visual entry to the San Bernardino area for travelers from the west and south, the interchange can provide sweeping views of the planning area.
- Waterman Avenue off-ramp from I-110 Freeway: important as a major access to the Hospitality district, as well as the entire planning area.
- SR 18 north of Waterman Avenue and Arrowhead Road: a significant entry into the urban planning area from the San Bernardino National Forest, this entry is visually distinguished by a stand of mature eucalyptus trees and offers wide panoramic views.
- SR 330 at Highland Avenue: this entry offers views of the east end for travelers from Running Springs and other mountain locations .

NODES

Entry



Pedestrian - oriented



Auto - oriented



- I-215 Freeway at Shandin Hills: though well within the planning area when traveling from the north, this location marks the entry into urban San Bernardino from rural locations. Its topographical form serves to offer travelers sweeping views of the central portion of the planning area.

(2) Secondary - The following minor entry nodes are present either within or immediately adjacent to the planning area:

- 2nd Street off-ramp from I-215 Freeway
- Mt. Vernon Avenue (at Colton city limit)
- Highland Avenue at Lytle Creek Wash
- Base Line Street at Lytle Creek Wash
- Santa Fe Train Passenger Terminal

b. Pedestrian-oriented Nodes

The following are nodes of activity due to a high pedestrian activity. They are classified as major or secondary according to their intensity of use, visibility, and significance:

(1) Major

- Inland Center (shopping mall)
- Central City Mall (shopping mall)
- California State University, San Bernardino
- San Bernardino Valley College

(2) Secondary

- County Administration Complex
- City Hall Plaza
- Seccombe Lake State Urban Recreation Area
- Perris Hill Park
- St. Bernardino Medical Center
- San Bernardino Community Hospital
- San Bernardino County Medical Complex

c. Auto-oriented Nodes

The following street intersections are classified as nodes because of their traffic volume and significant locations:

- Waterman Avenue and Hospitality Lane
- Base Line Street and Mt. Vernon Avenue
- Base Line Street and "E" Street
- Base Line Street and Sierra Way
- Base Line Street and Waterman

- Highland Avenue and “E” Street
- Highland Avenue and Waterman Avenue

3. Landmarks

“Landmarks” in an urban environment are visual reference points (structures, specific natural features, statues, and other elements) that uniquely identify a location to users. These reference points may or may not be regarded as aesthetically pleasing. In all cases, however, they are readily identifiable to the local population. Additionally, they will be the features that are most often recorded to the memory of visitors to the planning area.

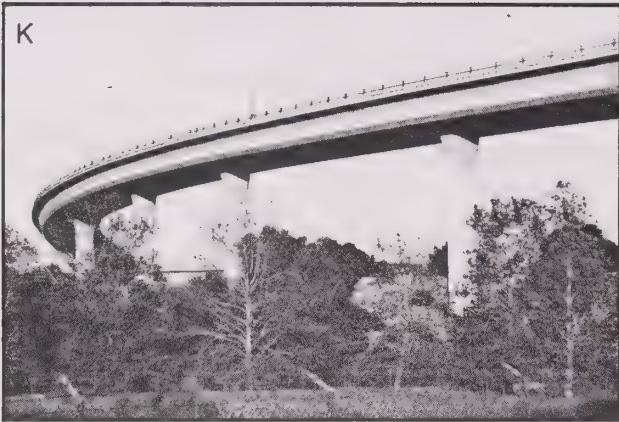
The San Bernardino planning area contains a wide variety of landmarks. These are illustrated on the Urban Design Structure map (Figure 18) and depicted in Figure 21. The following lists the landmarks of major and secondary significance:

a. Major

- (1) Large office buildings in the Central City/Civic Center: because of the concentration of structures here, this landmark is visually identifiable as a collection of buildings which include the City Hall, County Government Center, County Courthouse, downtown hotel, First Interstate Building, and Harris Company Tower.
- (2) Campus Crusade for Christ Headquarters Building: formerly the Arrowhead Springs Hotel, this white structure is visually distinct as a large scale structure set in the foothills overlooking and visible from many parts of the City.
- (3) The Arrowhead: a major natural feature in the shape of an arrowhead visible in the mountainside above the northeast sector of the planning area, this landmark is formed by differing soil and vegetation types. It has been historically noticed and referenced by residents of the planning area.
- (4) Shandin Hills: this topographic feature in the northwest section of the planning area is visible from much of the City.
- (5) The Guthrie Interchange of I-10 and I-215 Freeways: though outside of the planning area, roadways visually emphasize this large scale grouping of bridges and the planning area’s significance in the regional transportation network.
- (6) California State University, San Bernardino: this complex of academic buildings set among extensive landscaping is a visually distinct feature in the northwest portion of the planning area.

LANDMARKS

The Guthrie Interchange of
Interstates 10 and 215

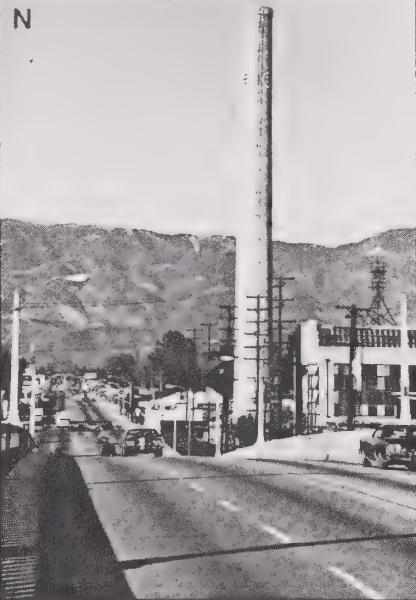


K

National Orange Show Grounds Stadium



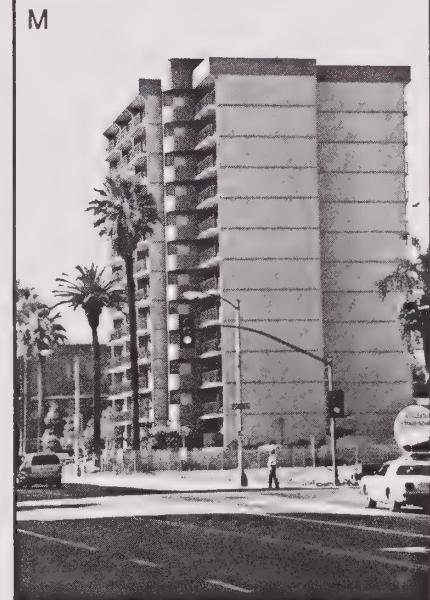
N



Sante Fe Yards smokestack



Soldiers and Sailors Monument



St. Bernardino Plaza
(retirement housing project)



California State University,
San Bernardino

(7) Patton State Hospital: this large scale institutional complex in the east end is a landmark because of the number and concentration of buildings, as well as its long-time presence in the community.

b. Secondary

- St. Bernardine Plaza
- Arrowhead Country Club Golf Course
- Former Administrative Building, Mt. View Cemetery
- St. Bernardine Medical Center
- Perris Hill, at Perris Hill Park
- Santa Fe Passenger Terminal
- Santa Fe Yards Smokestack
- Kruse Grain and Milling Company Tower (just outside the planning area)
- Orange Show Grounds Stadium
- National Soldiers and Sailors Monument (Pioneer Park)
- County Administrative Complex

4. Paths

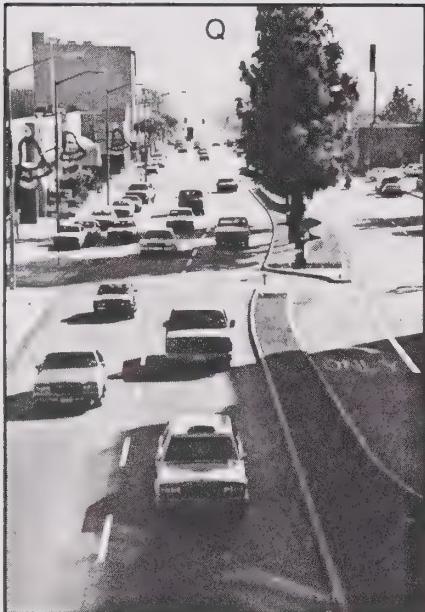
A "path" is a street, sidewalk, promenade, or trail which serves to connect principal vehicular and pedestrian movement in the City. Potentially, every street, highway, sidewalk, and rail line is a path. Major paths refer to principal corridors in which vehicles traverse the planning area, while secondary paths carry somewhat less traffic and often terminate within the City boundaries.

Paths are identified on the Urban Design Structure map (Figure 18) and depicted in Figure 22. The following identifies the paths in categories of major and secondary significance:

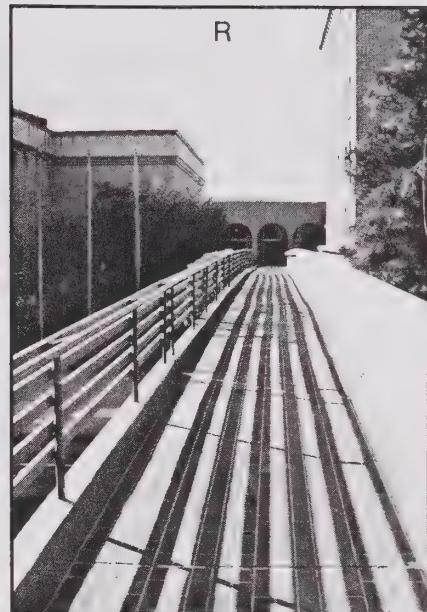
a. Major

- I-215 Freeway from Colton Interchange to Devore
- SR 30 from I-215 Freeway separator to terminus at Highland Avenue
- I-10 Freeway from Mt. View Avenue to Colton Interchange
- Mt. Vernon Avenue from La Cadena Drive to Highland Avenue
- "E" Street from Orange Show Road to 30th Street
- Sierra Way from Mill Street to 40th Street
- Waterman Avenue from I-10 Freeway to National Forest Boundary
- Palm Avenue from I-10 Freeway to Highland Avenue
- Highland Avenue from Mt. Vernon Avenue to Sterling Avenue
- Base Line Street from west city limits to east city limits
- 5th Street from Mt. Vernon to Waterman Avenue
- 2nd Street from I-215 Freeway to Waterman Avenue
- Inland Center Drive from I-10 Freeway to "E" / Mill Street intersection

PATHS

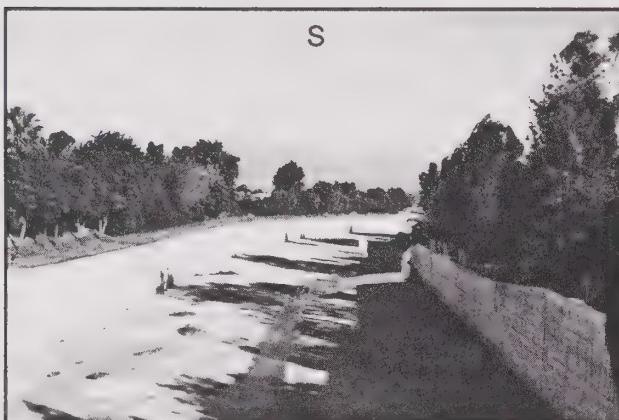


"E" Street, the City's principal surface street, is a good example of a path.



The bridge linking City Hall Plaza and Central City Mall is an example of a pedestrian path.

EDGES



Channelized creekbeds like this section of Lytle Creek east of Mt. Vernon Avenue are edges because they physically separate land and activity.



The wide expanse of land utilized as the Santa Fe Railroad yards is a path as well as a major edge, separating the West Side district into two distinct entities.



The Santa Ana River channel completely separates the Hospitality Lane and South Pointe districts from the remainder of the planning area.

- Redlands from west city limits to east city limits
- Arrowhead Avenue form 30th Street to Marshall Boulevard

b. Secondary

- Kendall Drive from Pine Avenue to 40th Street
- 40th Street from Kendall Drive to Mountain Avenue
- Highland Avenue from Sterling Avenue to City Creek Road
- Little Mountain Drive through Shandin Hills
- Pedestrian bridge linking City Hall Plaza to Central City Mall

5. Edges

An “edge” is a linear element that acts as a boundary between areas or districts. An edge can often act as an abrupt break in continuity. Railroad tracks, freeways, and rivers are all typical edges in San Bernardino.

Edges are identified on the Urban Design Structure map (Figure 18) and depicted in Figure 22. The following lists the edges in categories of major and secondary significance.

a. Major

- (1) San Bernardino Mountains: the dominant physical and visual feature in the planning area is also its principal edge, separating the City from the high desert portions of the County.
- (2) Cajon/Lytle Creek Wash: these wide intermittent stream channels distinctly separate the planning area from Rialto to the west, and act to isolate the southwest sector (the “bench”).
- (3) Interstate 215 Freeway: the most important man-made “edge”, this freeway separates the west side and Muscoy districts from the remainder of the planning area.
- (4) Santa Fe Railroad Yards: this edge divides the west side district into two sub-areas. The Mt. Vernon viaduct is the only path connecting them.

b. Secondary

- Santa Ana River
- Norton Air Force Base Fence, northern perimeter along 3rd Street
- Southern Pacific Rail tracks in South Pointe
- Interstate 10 Freeway
- East Twin Creek Spreading Basin

D. STREETSCAPE ELEMENTS

"Streetscape" is defined as the aggregation of the elements that constitute the public spaces which separate the buildings, make them accessible and perceptible by pedestrians and motorists. These encompass all physical improvements and equipment used in outdoor spaces for purposes of security, traffic control, housekeeping, and amenity*.

The streetscape environment of the planning area has resulted from the application of public agency standards from both the City and County of San Bernardino, and from the Redevelopment Agency when involving land within one of the project areas. These standards, established for streets, sidewalks, parkways, landscaping, street furniture, lighting, and signage, have changed over time. This has resulted in a wide range of streetscape attributes when considering the planned areas as a whole. Furthermore, there are cases where private development that has provided amenities above and beyond the standards themselves. Components of San Bernardino's streetscape environment include the following (illustrated in Figure 23).

1. Street Landscaping

In general, landscaping along the planning area's streets is differentiated between residential and commercial/industrial areas. Residential neighborhoods contain the greatest amount of street trees and parkway vegetation. The City's two most significant parkways are within residential districts.

Commercial corridors vary substantially in the type, amount, and quality of existing landscaping. The southern lengths of Mt. Vernon Avenue, "E" Street, and Waterman Avenue contain virtually no street trees. On the other hands, the Central City area contains some extensive street landscaping, particularly along the redeveloped 2nd and 4th Street corridors. The Hospitality Lane area also exhibits extensive street landscaping. In this district, grassy berms are included to buffer perimeter parking from the public right-of-way. Renovated suburban-scaled shopping centers in the Del Rosa and east end district are incorporated grassy berms.

The most attractive street landscaping occurs in the older residential neighborhoods adjacent to the Muscupiabe Drive and Mt. View Avenue parkway corridors. When street trees are present, usually one species is present along a block face. Occasionally, two species are utilized. Prominent street tree types are Peppertree (*Schinus molle*), Fan palm (*Washingtonia robusta*), and Blue gum (*Eucalyptus globulus*).

2. Paving

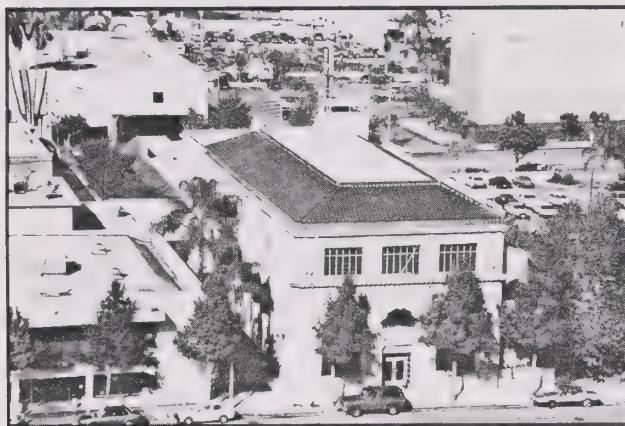
Major streets and sidewalks throughout San Bernardino planning area are paved with asphalt. These are generally maintained in good condition. Concrete curbing lines

* Streetscape Equipment Sourcebook, ULI-The Urban Land Institute, 1979.

STREETSCAPE ELEMENTS

Landscaping

The streets of the central business district include more street tree landscaping than most commercial districts of the planning area.



Recent residential development often incorporates perimeter landscaping on arterials.



Paving



Typical sidewalk in newer commercial areas. Width is generous, while parkways and street trees, are not included.



City Hall Plaza is paved with brick, adding formality and design quality to the Civic Center District.



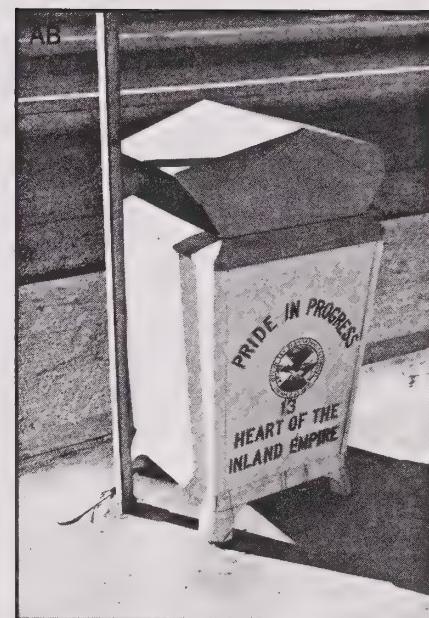
Downtown sidewalks are more generous than in newer areas, and most include street trees, as this stretch along "D" Street illustrates.

STREETSCAPE ELEMENTS

Street Furniture



Bus benches are generally backed with advertising - bus shelters are not present within the planning area.



Trash receptacles are located at bus stops and other locations throughout the planning area.

Signage



The older commercial strip districts, such as this block of Highland Avenue, exhibit several types of private commercial signage. Note the rooftop billboard on the right.



Signage along some stretches of auto-oriented commercial districts, such as this block of Waterman Avenue, is sometimes cluttered and confusing.

most streets in the City, whereas most of the unincorporated area has no paved curbing or sidewalks. Sidewalks are not consistent in their occurrence or width within the incorporated City area. When they do occur, they extend from the curb to the property line, with no parkway area. Some of the newer sidewalks have incorporated holes allowing for a future street tree program. The Central City area has received the most careful sidewalk treatment. Here, the City Hall plaza is paved with brick pavers which extend to the sidewalk area. The Central City Mall's "E" Street entry plaza provides a pleasant urban plaza with textured concrete.

3. Street Furniture

Street furniture is scattered along the sidewalks in the commercial corridors of the City. Generally, this is limited to bus benches, trash receptacles, news racks, and telephone booths. Bus benches are of a typical design, using wood slats that support off-site advertising on their back supported by concrete frames. They are sporadically located at bus stops throughout the planning area. Trash receptacles are rectangular metal boxes with metal hood rain guards supported by short legs. On their surface is the City's official seal, which is augmented by a stenciled spray paint message "Pride in Progress - Heart of the Inland Empire." They occur mainly at locations with bus benches. News racks and telephone booths are of typical steel and plexiglass construction, and occur at irregular intervals.

4. Street Lighting and Utilities

Municipal street lighting is located throughout the City. It varies widely in design. Semi-rural areas often contain "edisons" or fixtures attached to electric transmission wire posts. Some older residential districts contain composed aggregate "candle" style standards. Most areas are illuminated by conventional cobrahead light standards. Currently, the City is using composed aggregate cobraheads which are tapered and shaped into hexagonal posts. The Central City area contains specially designed lighting for the City Hall and Central City Mall entry plazas.

Traffic signals are mounted on steel poles extending from the sidewalk. The support posts are painted yellow and is often cracking and peeling, conveying the impression of poor maintenance. Crosswalk buttons are usually mounted on separate poles creating an unnecessary degree of clutter of equipment on sidewalks at intersections. Signal control switch boxes are often placed directly in the center of sidewalk paths, creating problems of pedestrian flow.

Utility lines are often strung from above-ground poles. These overhead lines are generally regarded as unsightly.

5. Signage

Two categories of signage occur within the City: public information and traffic control signs, and private commercial and manufacturing signage. Public informational signs are generally simple and unadorned.

Private commercial signage is much more diverse in type, scale, and cohesiveness throughout the planning area. Retail commercial uses are the principal generator of identification and on-site advertising signage. Often, signage character parallels other aspects of a retail development's design character. For example, auto-oriented retail establishments and districts are noted by wide front parking lot areas and large, free-standing signs designed to attract motorists approaching from blocks distance.

Older commercial strip districts are more likely to incorporate window or rooftop signs visible to pedestrians and motorists. When original signage is present in older commercial districts and is maintained in good working order, signage can add to the character and integrity of a commercial district. On the other hand, when signage is updated or modernized, the result can be unsightly. Often, problems of cluttered signage occur when the number and sized of on-site advertising signs is unregulated. This is especially noticeable along stretches of "E" Street south of Mill Street, and along Waterman Avenue between 9th and 2nd Streets.

Billboard or off-site advertising is also present throughout the planning area, generally mounted on poles atop or adjacent to commercial structures.

The most well designated signage occurs in the newer retail commercial developments of east Highland Avenue and the Hospitality Lane area, especially east of Waterman Avenue. However, many buildings display excessive and unattractive signage. They are characterized by one or more of the following conditions:

- multiple signs are placed randomly on facades
- sign area covers an excessive percentage of the facade
- sign colors or materials are incompatible with the building
- rotating, flashing, or otherwise animated signs are excessively distracting
- sign materials are deteriorated
- large roof or free-standing signs are out of scale

E. EXISTING URBAN DESIGN STANDARDS

The form of urban environment is largely the result of standards and regulations imposed on new development. The primary documents in the incorporated portion of the planning area are Title 18 and Title 19 of the San Bernardino Municipal Code. Title 18 regulates the subdivision of private property, thereby regulating the size of individual projects. Title 19, the Zoning ordinance, regulates land uses and a host of features that impact urban design, such as landscaping, setbacks, and signage requirements by land use type. Recent amendments to the Zoning ordinance that will affect future urban de-

sign in the City include Section 19.60, Signs, and Section 19.56, Parking Requirements, which regulates landscaping in parking lots.

In addition to design standards set forth in Title 19, special urban design standards are present in some of the City's twelve redevelopment project areas (see Technical Background Report, Section 2.5, Redevelopment). These special standards set forth architectural and site design standards to create a sense of cohesion in these revitalizing areas. The most extensive example of these special restrictions are the Development Framework and Design Guidelines adopted as part of the Central City South Overlay District, adopted in January, 1987. These guidelines discuss access and parking, height, bulk, and setback of buildings, ground floor frontage, landscaping and hardscaping, and other design features.

Finally, certain master planned areas have their own codes, covenants, and restrictions (CC&Rs) which are applied by the master developers to projects that wish to locate within these areas. Two examples of this case are the Tri-City Corporate Center in the Hospitality district and the State College Business Park within the State College Redevelopment Project Area.

Through the efforts of the Redevelopment Agency, a group of downtown business persons has recently formed the "Main Street Corporation" concerned with the revitalization of downtown San Bernardino, specifically, the area north of 2nd Street, east of E Street, south of 6th Street, and west of Arrowhead Avenue. The group has retained an architectural consultant team to prepare a streetscape design program to promote pedestrian activity and add cohesiveness to the area. Slated for completion in mid-January, 1988, components of the Plan will include specifications for pedestrian-friendly crosswalks and sidewalks, street furniture, and facade and window treatment.

F. ISSUES

1. San Bernardino has evolved over time without a defined strategy for organization of land uses, building forms, open spaces, and linkages. Consequently, a number of districts are poorly defined or linked to adjacent ones.
2. While select areas exhibit a sense of place through their built form and urban design elements, the inconsistency and absence of an overall urban design framework (landscaping, right-of-way, and signage standards) weakens the area's image and design quality.
3. On-site advertising and identification signage is visually-appealing and well-integrated with the design of buildings and sites and in some newer commercial areas, but unsightly, cluttered, and distracting in others.
4. Overhead utility lines and excessively large street lighting equipment clutter and detract from many visually appealing streetscape elements, such as tall trees.

5. Certain commercial districts and residential neighborhoods contain well designed buildings and landscaping treatments which are important assets within the planning area. These features provide good references and points of departure for future urban design improvements.
6. Most strip commercial corridors have not maximized their potential as pedestrian-intensive spaces with streetscape, siting of new buildings, and addition of pedestrian amenities.
7. While the planning area is deficient in streetscape improvement such as street trees, planted medians, and special crosswalk treatments at pedestrian nodes, there are many opportunities for these improvements which would enhance the quality of the built environment and image of the City.
8. Entries into the City have not been adequately defined and highlighted.
9. The "edges" that are natural features (e.g., San Bernardino Mountains, Santa Ana River) serve to illustrate the physical geography of the area. Many of these provide excellent opportunities for parkway or other open space features for public recreational use. Man-made "edges" (e.g., Santa Fe Railroad yards, Interstate 10 Freeway) tend to isolate different districts from one another. These edges deserve special attention in creating clear linkages.
10. The planning area contains a number of historical and architecturally significant buildings which currently receive no special attention or protection (e.g., special listing or identification plaques, walking tours). These structures are urban design assets which can serve as district focal points.
11. The trend to incorporate new urban design requirements into the Municipal Code and Redevelopment Plans is a positive step to enduring a higher quality built environment.
12. Though several regulations are adopted into City ordinances, an apparent lack of code enforcement has allowed illegal signage and property maintenance conditions to persist. This results in a poor urban design image and erodes respect for urban design codes.

GOALS, OBJECTIVES AND POLICIES

The following presents the goals, objectives and policies for urban design for public open spaces in the City of San Bernardino. At the end of each policy is listed in parentheses a capital "I" and number which corresponds to its implementation program presented in the subsequent section of this element. Figure 24 depicts the overall urban design plan components provided for by policy.

ISSUE ONE: ENTRY IDENTIFICATION

Goal

It shall be the goal of the City of San Bernardino to:

- 5A Establish a sense of entry into the City of San Bernardino from adjacent cities and into city districts that serve to define the boundaries and edges of the City and the unique attributes of districts.

Objective

It shall be an objective of the City of San Bernardino to:

- 5.1 Define clearly identifiable entries to the City of San Bernardino from adjacent jurisdictions through a series of recommended physical improvements to selected intersections, locations and right-of-ways.

Policies

It shall be a policy of the City of San Bernardino to:

- 5.1.1 Provide improvements along principal streets at the City boundary with adjacent jurisdictions, at major identified intersections and edges which clearly distinguishes these as major entries to the City: such improvements may include elements such as signage, landscaping, vertical pylons and/or other distinctive treatments (I5.1)
- 5.1.2 Establish entry improvements at the following areas (I5.1, and I5.11):
- a. Waterman at Hospitality Lane
 - b. State Route 18 at National Forest boundary
 - c. State Route 330 (City Creek Road) at Highland Avenue
 - d. I-215 Freeway at Shandin Hills
 - e. I-215 Freeway at Cable Wash
 - f. I-215 Freeway at Inland Center Drive off-ramps

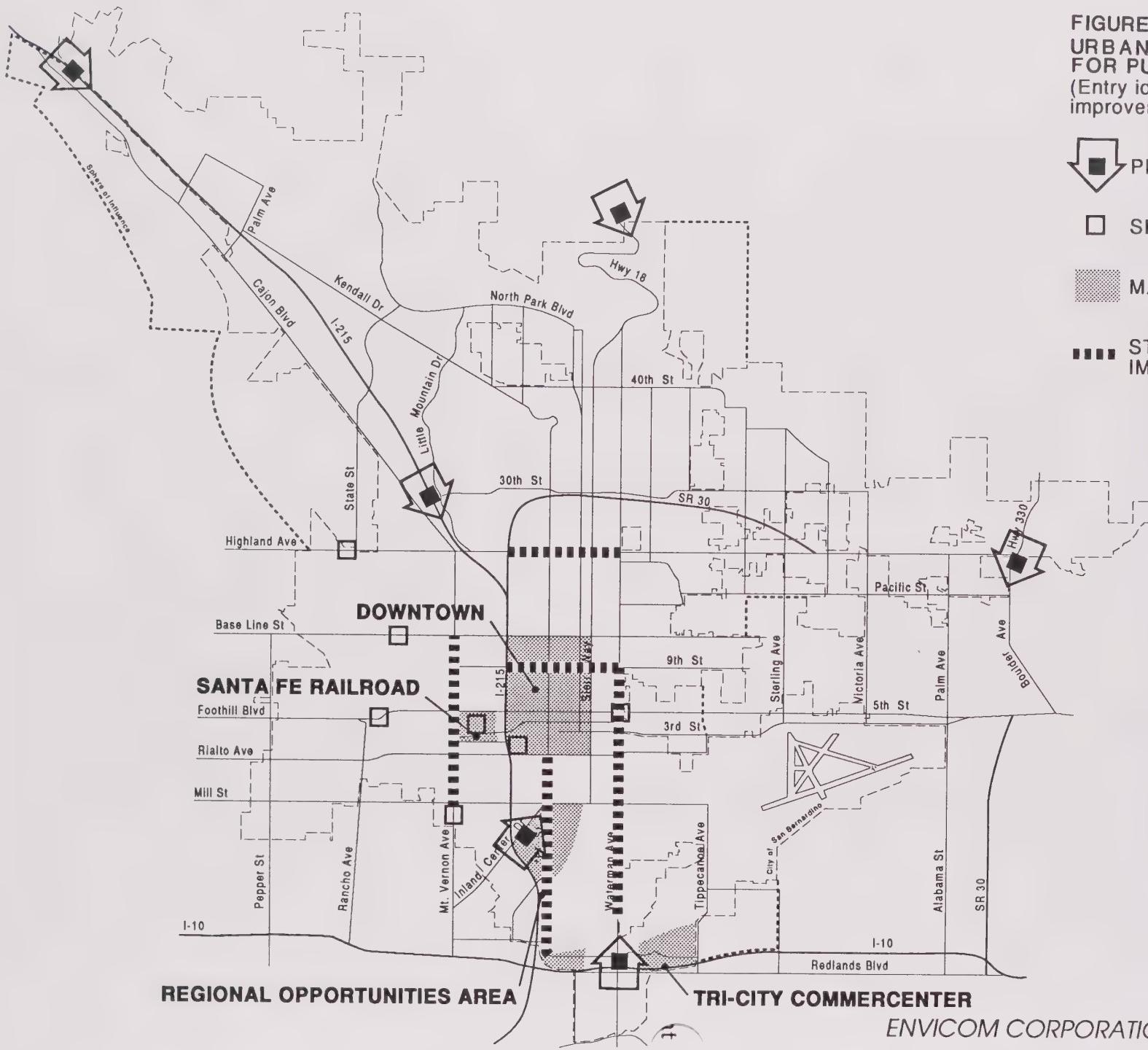
FIGURE 24
URBAN DESIGN PLAN
FOR PUBLIC SPACES
 (Entry identification streetscape improvements)

▼ PRIMARY ENTRIES

□ SECONDARY ENTRIES

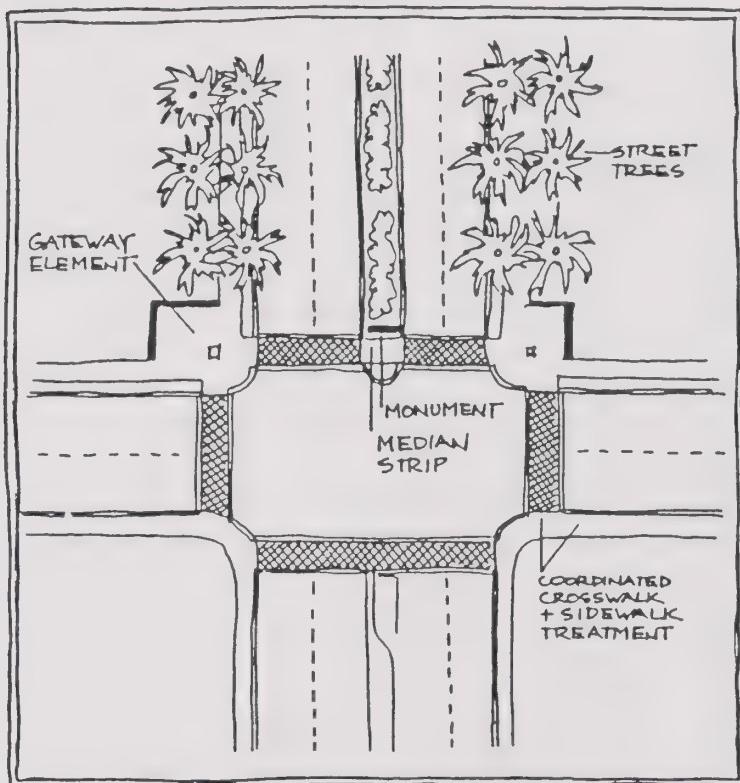
■ MAJOR DISTRICTS

■■■ STREETSCAPE IMPROVEMENTS



5.1.3 Establish secondary entry improvements at the following areas (I5.1, I5.11):

- a. 2nd Street at I-215 Freeway
- b. Mt. Vernon at Colton City limit
- c. Highland at Lytle Creek Wash (east side)
- d. Baseline At Lytle Creek Wash (east side)
- e. Santa Fe Railroad Passenger Terminal
- f. 5th Street at Nunez Park
- g. 5th Street at Waterman



Prototype Entry Improvements

- 5.1.4 Establish entry improvements at selected locations on freeway off-ramps within the City (I5.1, I5.11).
- 5.1.5 Provide for signage specifically designed for the purpose of city identification which denotes principal entries to the City through informational lettering, logos, photo-silkscreens and/or graphics (I5.1, I5.10, and I5.11).
- 5.1.6 Provide for a coordinated streetscape design at identified entries to the City that includes street lighting, street furniture, and sidewalk/crosswalk improvements in the public right-of-way (I5.1, I5.7, and I5.11).

5.1.7 Provide for the consistent use of street trees and landscaping design to identify entry points to the City (I5.1, and I5.11).

Objective

It shall be the objective of the City of San Bernardino to:

5.2 Define clearly identifiable entries to districts in the City of San Bernardino through a series of physical improvements to selected intersections, locations and right-of-ways.

Policies

It shall be the policy of the City of San Bernardino to:

5.2.1 Locate major accent trees at entry locations and intersections identified in 5.1.2 and 5.1.3. Species should be of a "grand" scale to differentiate these key locations (such as palms, canary island pines, or poplars) (I5.1, I5.11).

5.2.2 Create entry improvements as gateway elements to districts; these elements could consist of monument pylons, freestanding banners on poles, banners hung from existing light or marbelite standards (subject to agreement with the utility company) or graphic elements hung from or attached to private buildings. In the downtown district, these improvements should be located at the following intersections (I5.1, I5.7, and I5.11):

- a. Rialto Avenue at E Street
- b. Rialto Avenue at Waterman Avenue
- c. 5th Street and Mount Vernon Avenue
- d. 8th Street and Mount Vernon Avenue
- e. Base Line Street at E Street
- f. Base Line Street at Waterman
- g. 5th Street at Waterman Avenue

5.2.3 Encourage a new bridge treatment over the Santa Ana River that emphasizes passage over an important city edge and is designed to be a major gateway to the city from the south; this could include new bridge pylons, balustrade, paving, and banner treatment (I5.1, I5.7, and I5.11).

5.2.4 Install pylons/monuments at the intersections of Mount Vernon, 5th and 2nd Streets that would be designed to visually connect the Mount Vernon commercial area to the railroad station and downtown. The design of the pylons/monuments should be coordinated with the designs of similar structures in the adjacent areas (I5.1, I5.7, and I5.11).

ISSUE TWO: STREETSCAPE IMPROVEMENT

Goal

It shall be the goal of the City of San Bernardino to:

- 5B Establish and maintain distinctive public spaces and right-of-ways for the City of San Bernardino which capitalizes on existing physical assets and differentiates the City as a unique place in southern California.

Objective

It shall be the objective of the City of San Bernardino to:

- 5.3 Define the City's layout and circulation pattern and enhance distinctions between identified districts through the establishment of Master Street Tree and Streetscape Improvement Plan that will delineate major pathways, corridors, and districts.

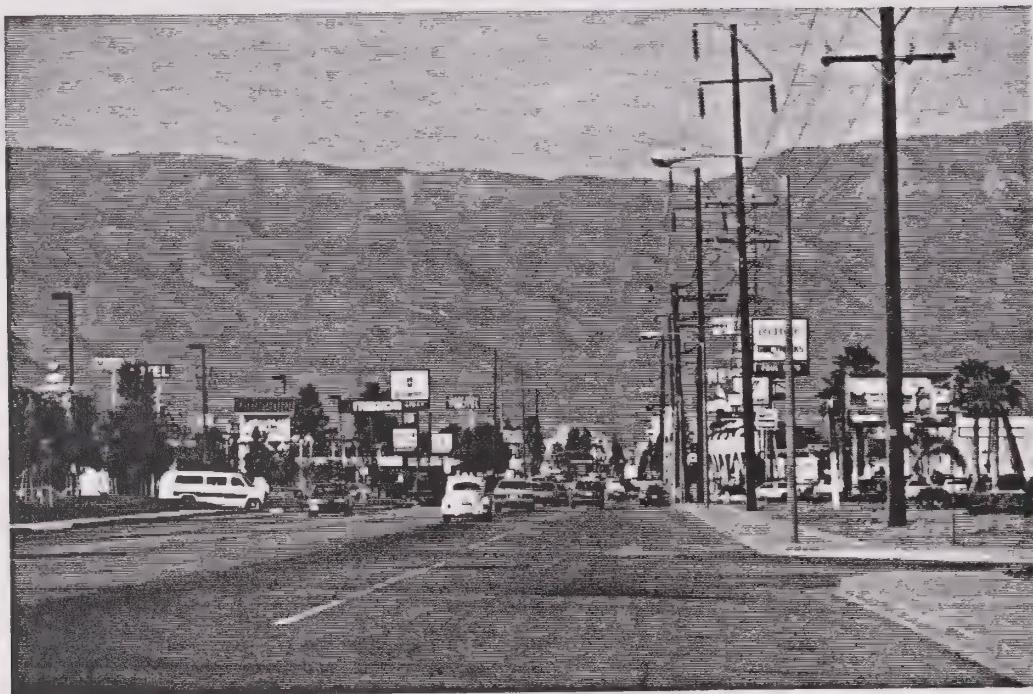
Policies

It shall be the policy of the City of San Bernardino to:

- 5.3.1 Establish a comprehensive streetscape and landscape improvement program for identified corridors and districts that will set standards and priorities for the selection and installation of, but not limited to, the following (I5.1, I5.2, I5.7, I5.11, and I5.12):
- a. street trees
 - b. street lighting
 - c. streetscape elements (sidewalk/crosswalk paving, street furniture)
 - d. public signage
- 5.3.2 Establish streetscape and landscape standards for, but not limited to, the following corridors and districts (as illustrated in Figure 25) (I5.1, I5.2, I5.3, I5.7, I5.8, and I5.11):
- a. Waterman Avenue, from Hospitality Lane to Highland Avenue.
 - b. E Street, from Hospitality Lane to Highland Avenue.
 - c. Base Line Street, from I-215 Freeway to Waterman Avenue.
 - d. Highland Avenue, from I-215 Freeway to Waterman Avenue.

FIGURE 25a

PROTOTYPE STREETSCAPE IMPROVEMENTS



STREETSCAPE IMPROVEMENTS



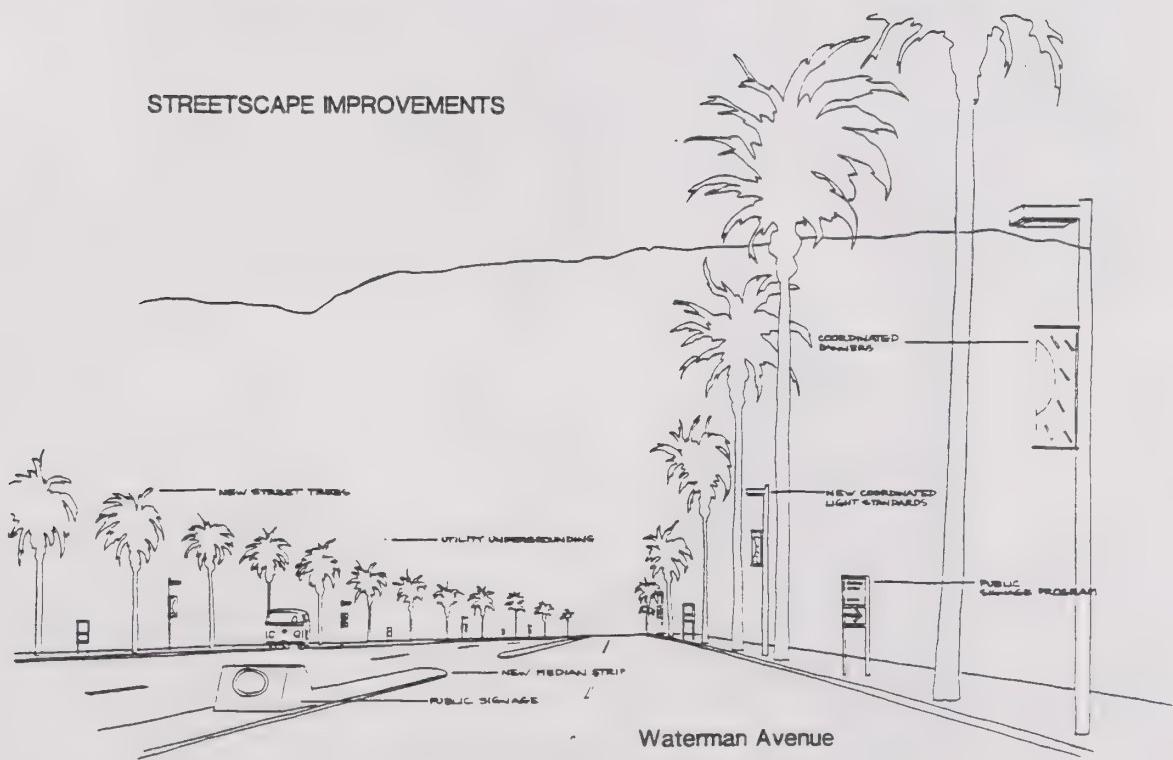
E Street

FIGURE 25b

PROTOTYPE STREETSCAPE IMPROVEMENTS



STREETSCAPE IMPROVEMENTS



- e. Inland Center Drive, from Mount Vernon Avenue to E Street
- f. Mount Vernon Avenue, from Base Line Street to the Colton city limit.
- g. Downtown San Bernardino, bounded by I-215 Freeway on the west, Base Line Street on the north, Waterman Avenue on the east, and Rialto Avenue on the south.
- h. Santa Fe Railroad District, from Mount Vernon Avenue on the west, 5th Street on the north, I-215 Freeway on the east, and 2nd Street on the south.

5.3.3 Provide for the consistent use of street trees to identify City streets, residential neighborhoods, commercial districts, and entry points to the City (I5.1, I5.2, I5.3, I5.4, I5.5, and I5.11).

5.3.4 Adopt a Master Plan of Street Trees defining the types and spacing of trees and landscaping along all thoroughfares (I5.1, I5.3, I5.12).

5.3.5 Select species which (a) enhance the pedestrian character of, and convey a distinctive and high quality visual image for the City's streets, (b) are drought- and smog-tolerant, fire-resistant and pest-resistant, and (c) complement existing street trees (I5.2, and I5.3).



5.3.6

Establish a hierarchy for the street trees which shall include (I5.2, and I5.3):

a. Major Accent Trees

These trees are to be located at entry locations, intersections, and activity centers, as described in 5.2.1.



b. Street Trees

Select specific species to be the common tree for the street frontages. A single species may be selected for all residential neighborhoods and commercial districts or different species selected to distinguish one neighborhood, district, or street from one another. In residential neighborhoods, the trees should be full, to provide shade and color. In commercial districts, the trees should provide shade, but be more transparent to promote views of store fronts and visual interaction of pedestrians.

c. Ornamental or Street Plantings

At special areas along the street frontages, such as linkages to pedestrian walkways and plazas and outdoor dining areas, ornamental trees providing shade and color should be utilized. These areas can be enhanced by the trees focusing attention on those special places.

- 5.3.7 Require that all new development install street trees in accordance with a Street Tree Master Plan (I5.2).
- 5.3.8 Establish a program to provide for the installation of street trees along existing public sidewalks where they are not present, in accordance with a Street Tree Master Plan (I5.2, I5.4, and I5.11).
- 5.3.9 Encourage community groups to participate in planting new street trees where they do not exist (I5.6).
- 5.3.10 Require that street trees be adequately maintained and replaced if removed due to damage or health (I5.6).
- 5.3.11 Require that all new street landscape incorporate an irrigation system to provide proper watering (I5.6).
- 5.3.12 Create a program to install street trees in identified districts and on pathways in the City; priority consideration shall be given, but not limited to, the districts and streets identified in 5.3.2 (I5.4, I5.11).
- 5.3.13 Require, where setbacks of buildings permit, the planting of a double row of street trees along identified pathways in the City. The following streets shall be considered, but such consideration shall not be limited, for the planting of the double row of street trees (I5.7, I5.8):
 - a. Waterman Avenue, from Hospitality Lane to Highland Avenue.
 - b. E Street, from Hospitality Lane to Rialto Avenue.

Objective

It shall be the objective of the City of San Bernardino to:

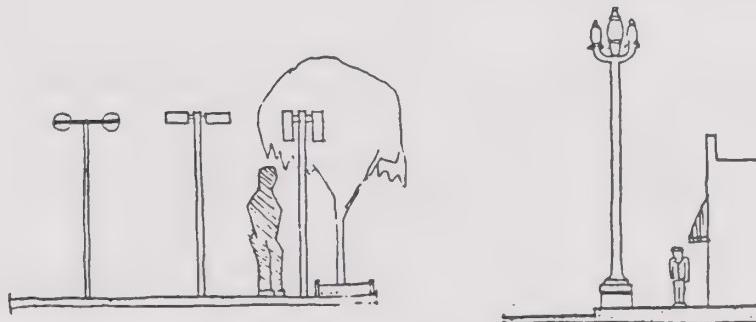
- 5.4 Establish a high quality visual and functional environment along the City's streets and public rights-of-way to stimulate pedestrian activity.

Policies

It shall be the policy of the City of San Bernardino to:

- 5.4.1 Establish a program to improve the City's major streets and key intersections using recommendations from the More Attractive Community (MAC) Program and Main Street Program (I5.7, I5.12).

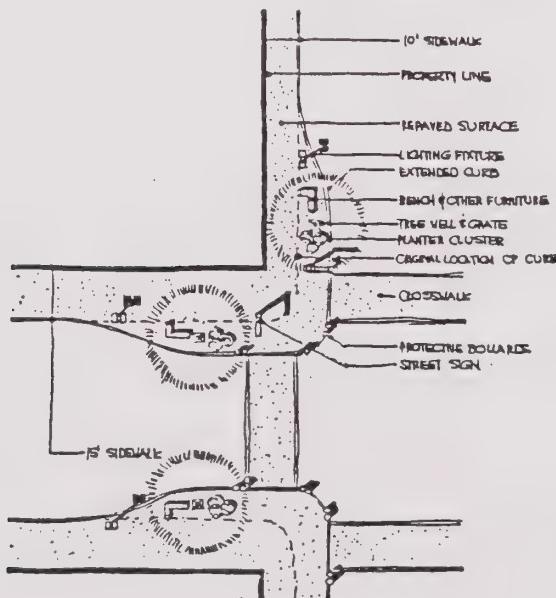
- 5.4.2 Install new street furniture where it does not impede pedestrian activity or physical and visual access to buildings and which is aesthetically pleasing, consistent in design, functional, comfortable, durable and is conducive to pedestrian activity and discourages sleeping on benches, including such elements as bus and pedestrian benches, bus shelters, trash receptacles, newspaper racks, bicycle racks, public telephones, landscaped planters, drinking fountains, and bollards. Priority consideration shall be given, but not limited to, the streets and districts identified in 5.3.2 (I5.11).



- 5.4.3 Install new street lights in commercial districts which are pedestrian-oriented, attractively designed, compatible in design with other street furniture, and provide adequate visibility and security (I5.8, I5.11).

- 5.4.4 Establish a program to select and install street lights that reinforce the character of the particular district and create a festive and exciting nighttime environment, and can be modified in certain areas for special activities and functions (I5.8, I5.11).

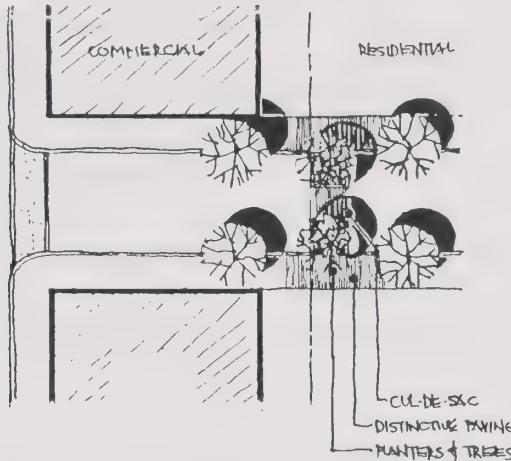
- 5.4.5 Establish a consistent street lighting type in the downtown area utilizing a light standard that is compatible with the historic commercial fabric and coordinated with an overall street furniture and graphics/signage program (I5.8).
- 5.4.6 Require the adjustment of orientation and placement of all light fixtures and sources away from residences and adjacent buildings in public areas, unless there are no practical and cost effective alternatives to maintain the public safety (I5.8).
- 5.4.7 Re-pave existing sidewalks and crosswalks in principal commercial districts such as downtown, Mt. Vernon Avenue, Base Line Street and Highland Avenue, with brick pavers, concrete, or other safe, non-slip materials to create a distinctive pedestrian environment and, for crosswalks, to visually and physically differentiate these from vehicle travel lanes and promote continuity between pedestrian sidewalks (I5.8, I5.11).
- 5.4.8 Develop sidewalk "pull-outs" at intersections, where they do not adversely impact traffic flow or safety, by extending the sidewalk to the depth of a parking stall, to accommodate landscaping and street furniture and reduce the width of the crosswalk (I5.8, I5.11).



- 5.4.9 Remove parking stalls at selected locations when other parking is available along commercial streets to accommodate additional landscape and street furniture (I5.8, I5.11).

5.4.10 Require the inclusion of pullout areas for private vehicle and public transit passenger drop-offs in large-scale development projects and locate these so that they do not impede traffic flow or parking access (I5.8, I5.9, I5.11).

5.4.11 Require that if cul-de-sacs are required to restrict travel through residential neighborhoods, they be aesthetically designed to complement adjacent uses and incorporate landscaping, benches, and other pedestrian-oriented amenities (I5.8, I5.11).



5.4.12 Require that all sidewalks, crosswalks, street furniture and other open space amenities be designed to accommodate the physically impaired (I5.8, I5.9, I5.11).

5.4.13 Require the long-term public maintenance of sidewalks and streetscape amenities (I5.13).

5.4.14 Continue to remove underground utility wires in San Bernardino, conforming to the policies prescribed in the Utilities Element; setting a timetable and priority list of streets and districts for undergrounding that will include, but not be limited to, the following areas (I5.8, I5.11):

- a. Waterman Avenue, from Hospitality Lane to Highland Avenue.
- b. E Street, from Hospitality Lane to Highland Avenue.
- c. Base Line Street, from I-215 Freeway to Waterman Avenue.
- d. Highland Avenue, from I-215 Freeway to Waterman Avenue.
- e. Inland Center Drive, from Mount Vernon Avenue to E Street.
- f. Mount Vernon Avenue, from Base Line Street to the Colton city limit.

g. Downtown San Bernardino, bounded by I-215 Freeway on the west, Base Line Street on the north, Waterman Avenue on the east, and Rialto Avenue on the south.

h. Santa Fe Railroad District, from Mount Vernon Avenue on the west, 5th Street on the north, I-215 Freeway on the east, and 2nd Street on the south.

5.4.15 Require that new development projects underground existing utilities adjacent to their site, or contribute an in-lieu fee for such undergrounding to the City, as a condition of project or tentative tract approval (I5.8, I5.11).

Objective

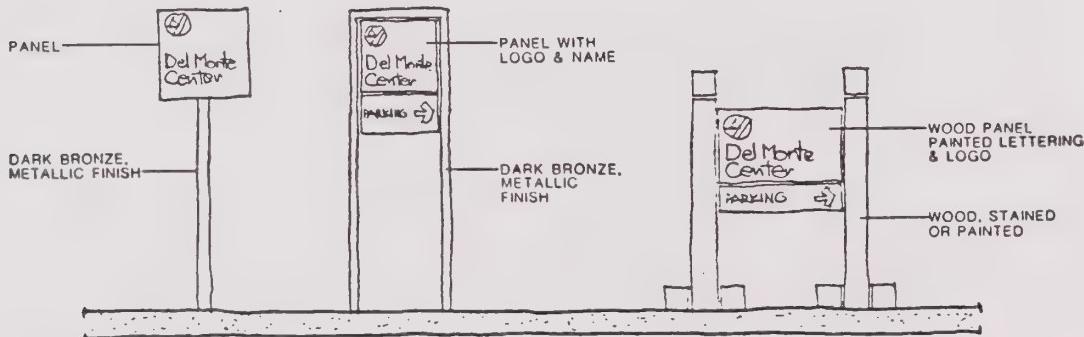
It shall be the objective of the City of San Bernardino to:

5.5 Develop a consistent and well-designed program of public informational signage.

Policies

It shall be the policy of the City of San Bernardino to:

5.5.1 Establish a consistent design for all public signage, including fixture type, lettering, colors, symbols, and logos designed for specific areas or pathways (I5.10).



5.5.2 Provide signage which is adequately spaced and clearly visible during the day and night to control vehicular traffic, bicycles, and pedestrians (I5.8, I5.11).

5.5.3 Replace existing public signage with new fixtures which consolidate, as feasible, the diversity of signage information (parking, locational, traffic control, etc.) (I5.11).

- 5.5.4 Provide for distinctive signage which identifies principal entries to the City, unique districts, neighborhoods, and locations, historic structures and districts, and public buildings and parks (I5.1, I5.10, I5.11).
- 5.5.5 Provide for the use of well-designed and placed banners for City events, holidays, and other special occasions (I5.8, I5.10, I5.11).
- 5.5.6 Provide for the use of kiosks or other street furniture along the City's streets (I5.7, I5.8, I5.11).
- 5.5.7 Ensure that public signage complements, and not detracts from adjacent commercial and residential uses and that it enhances designated historic sites and districts (I5.8, I5.10).

Objective

It shall be the objective of the City of San Bernardino to:

- 5.6 Enhance the principal commercial districts and residential neighborhoods of the City through open space and right-of-way improvements that compliment the areas' unique attributes.

Policies

It shall be the policy of the City of San Bernardino to:

- 5.6.1 Provide for streetscape improvements, landscape, and signage which uniquely identify the principal commercial districts of the City as identified in the Land Use Element, including, but not limited to, Downtown, the Tri-City/Commercenter area, the Mount Vernon Street, Highland Avenue Core, the Base Line Street corridor, and the "Regional Opportunities" area through a program that may include signage, street furniture, landscape, lighting, pavement treatments, and public art, with input from local community groups (I5.1, I5.10, I5.11, I5.12).
- 5.6.2 Provide for streetscape improvements, landscape and/or signage which uniquely identify architecturally or historically significant residential neighborhoods (I5.1, I5.10, I5.11, I5.12).
- 5.6.3 Identify locations for, and develop landscaped median strips within commercial streets, provided that there is adequate space, traffic flow, site access, and the proper street cross-section to insert the medians (I5.7, I5.8, I5.11).
- 5.6.4 Establish public open space standards that will guide the design of new public plazas and open spaces in Downtown San Bernardino; including

the consideration of the siting of open space (to maximize pedestrian accessibility and circulation, solar exposure or protection), adjacency to pedestrian routes and other open spaces, and appropriate plant and hardscape materials (I5.8, I5.11).

- 5.6.5 Formulate landscaping standards that reinforce the architecture and historic significance of the railroad station area and a program of streetscape improvements as outlined in 5.3.1 to connect the station area with the Mount Vernon Street area and downtown that will visually weave the three areas together (I5.1, I5.7, I5.8, I5.10, I5.11).

IMPLEMENTATION PROGRAMS

The following indicates the programs which shall be carried out by the City of San Bernardino to implement the goals, objectives, policies, and standards of the Urban Design Public Open Spaces Element. Each program is preceded by a capital "I" and a number which is referenced by their pertinent policy which it implements in the preceding section.

Entry and District Identification

I5.1 Prepare Entry and District Identification Plans

The City shall prepare comprehensive plans for the installation of improvements which provide unique identity to entry points and principal districts of the City. This shall include the specification of the design improvements to be used (e.g., signage, plaques, landscape, and monuments) and their locations.

Street Trees and Landscaping

I5.2 Prepare Street Tree Master Plan

The City shall prepare a master plan which shall list the permitted street trees for all street frontages in San Bernardino. It will specify species, minimum size, and irrigation requirements. It is intended that the plan identify consistent species for blocks, streets, neighborhood or districts which provide distinct identities for these areas.

I5.3 Amend Development Code

The Development Code shall provide for the standards and requirements of the Master Plan of Street Trees and Urban Design Element

I5.4 City Beautification Fund

The City shall allocate funds for the installation of street trees along street frontages where they have been removed or never existed and when it is anticipated that there will be no new development activity which would result in their implementation. Revenue sources may include the General Fund, exactions from new development projects, streetscape benefit assessment districts, and/or tax increment generated by new development in redevelopment project areas.

I5.5

Community Plantings

The City of San Bernardino shall work with and coordinate the planting of street trees with community groups. Private organizations will acquire and plant trees at the direction of and in coordination with local governments. Other local groups could also be encouraged to participate.

I5.6

Landscape Maintenance

The City shall annually allocate funds for the upkeep and maintenance of public landscape.

Streetscape Improvements and Landscaping

I5.7

Prepare Streetscape Improvement Master Plans

The City shall prepare master plans for the installation of streetscape improvements in the City. Initially, this will involve the identification of priority locations for improvements (that will be accomplished through the MAC Program of street intersection improvements).

I5.8

Prepare Design Improvement Plans

Once priorities have been defined, the City shall prepare design improvement plans for selected areas. Detail specifications for design performance and elements, paving materials, colors, street furniture, landscape, lighting, and other amenities shall be included, as well as cost estimates.

I5.9

Incorporate Accessibility Standards

Incorporate in the design of sidewalks, crosswalks, street furniture, and other open space amenities elements which provide access for and do not inhibit the use of wheelchairs and others who are physically impaired.

I5.10

Prepare Signage Master Plan

The City shall prepare a public signage master plan for the City. This should include specifications for design (size, color, materials, logo, etc.) and locations. It is intended that the signage provide an attractive, well-designed, and coordinated system of public information and consolidate, as feasible, the diverse public signage onto fewer fixtures.

I5.11

Funding of Urban Design Improvements

The City shall establish programs to fund the construction and installation of public space urban design improvements (signage, entry, district identification, landscape, and streetscape). Revenue sources may include General Funds, general obligation bonds, exactions from new development projects, benefit assessment districts, and/or tax increment generated by new developments in redevelopment project areas.

I5.12

Community Participation

Identification of urban design priorities in the City and their specification should actively involve the input of residents, businesspersons, and local associations and groups.

I5.13

Maintenance of Improvements

The City shall annually allocate funds for the maintenance of streetscape improvements. These may be derived from General Funds, maintenance districts and/or redevelopment tax increment. The City should consider the appropriateness of establishing a separate entity for the long-term maintenance and management of major streetscape improvement districts, e.g., downtown San Bernardino.

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C H A P T E R T W O

**INFRASTRUCTURE AND
COMMUNITY SERVICES**



6.0 CIRCULATION

INTRODUCTION AND STATUTORY REQUIREMENTS

Government Code Section 65302(b) requires a circulation element in all city general plans, as follows:

A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and other local public utilities and facilities, all correlated with the land use element of the plan.

The purpose of the San Bernardino Circulation Element is to evaluate transportation circulation needs within the City's area of planning interest and from this, to recommend circulation improvement for inclusion in the City's General Plan which will accommodate the demands for transportation service generated by the Land Use Element of the General Plan.

BACKGROUND DATA AND ANALYSES

A. ELEMENTS OF THE STREETS AND HIGHWAYS SYSTEM

1. Streets and Highways

A city's system is composed of a wide range of transportation facilities which serve two basic functions: mobility and land access. Mobility means providing the ability for motorists to travel between their points of interest. Land access means providing access to properties at the final destination which may include parking or driveway access. A circulation element is typically composed of facilities that emphasize either mobility or access to different degrees. The following types of facilities are typically defined:

<u>Facility Type</u>	<u>Emphasis (Mobility versus Land Access)</u>
Freeway	Mobility with no land access and limited access to arterial streets
Arterial	Mobility with access to collectors, some local streets and major traffic generators
Collector	Connects local streets with arterials and also provides access to adjacent land uses; thus balances mobility and access
Local	Primary purpose is to provide access to adjacent land uses; provides access to collector streets

Circulation systems are designed with the above hierarchy of streets largely as a means of achieving the goal of mobility and access in an efficient manner. Existing (1964) Roadway Classifications used in the planning area include "Freeway," Major Arterial/Street," "Secondary Arterial/Street," and "Collector." Figure 32 on Page 3-12 of the Technical Background Report illustrates the current roadway standards utilized in 1988. Refer to current City standards for present design criteria.

2. Regional Access

Regional and interregional access for the City of San Bernardino is provided by a system of freeways, highways, and local arterials. The San Bernardino Freeway (I-10) is the major east-west freeway providing access west to Los Angeles and east to the desert communities and beyond. Interstate 215 provides north-south freeway access to Riverside and San Diego counties to the south and the high desert communities to the north. State Route 30 provides local east-west service between I-215 and the eastern part of the City. The Route 30 corridor is currently under study for the development of a full freeway between San Bernardino and Upland. State Route 18 provides access to the numerous recreation areas in the mountains north of the City throughout the year.

Waterman Avenue, north of SR30, currently serves as interim Highway 18 and carries a daily traffic volume of approximately 19,000 vehicles. The majority of this traffic is regional traffic bound for the mountain areas north of the City. The State Highway Plan currently includes a potential new alignment for Highway 18 in the Harrison Canyon. The City intends to work with Caltrans to study other potential alignments for Highway 18 which would allow the removal of the interim Highway 18 designation from Waterman Avenue and which would minimize environmental impacts on residents in San Bernardino. Such an alternate route will be required to accommodate the growth in traffic destined for the mountain areas. Without an alternate route the volume of traffic on Waterman Avenue could increase to 38,000 vehicles per day by the year 2010.

Because the San Bernardino Planning Area is situated alongside two major interregional freeways, it receives all the benefits of accessibility and all the negative attributes as well. Ease of access will help the county maintain its status as a regional center with continued residential and economic growth. This means providing jobs for residents as well as those in other communities. It also means residents can live in San Bernardino and work in other communities. However, continued growth in San Bernardino, the surrounding communities and the region means the local streets and the highway system will probably experience significant increases in traffic.

3. Description of the Existing Circulation System

This section summarizes the analysis of existing conditions in the City of San Bernardino. this type of analysis has two fundamental purposes. It provides direction for the Circulation Element through the identification of existing conditions. Second, it

helps identify opportunities and constraints along major travel corridors from a transportation and development perspective.

The existing circulation network in San Bernardino has been developed as a grid system in many parts of the City. Due to natural barriers (e.g., rivers, mountains, canyons) and man-made barriers (e.g., freeways, railroads, Norton Air Force Base, and large development parcels), many of the streets do not extend across the City and the grid becomes discontinuous.

The primary north-south streets extending all the way from I-10 on the south to Highland Avenue on the north are Mt. Vernon Avenue, E Street, and Waterman Avenue. This causes each of these facilities to carry volumes of traffic in the 20,000 to 30,000 vehicles per day range.

Major east-west streets include Highland Avenue, Baseline Street, Foothill Boulevard, Rialto Avenue, Mill street, and Redlands Boulevard. Of these, Highland Avenue carries the highest volume of traffic, in excess of 30,000 vehicles per day. Table 42 of the Technical Background Report provides an inventory of existing traffic volumes on major roadways in the City.

4. Service Level Concept

The concept of Level of Service (LOS) is used to describe the operating characteristics of the street system in terms of the level of congestion or delay experienced by traffic. Service levels range from A through F with each level defined by a range of volume-to-capacity (V/C) ratios. Levels of service A, B, and C are considered good operating conditions with only minor delays being experienced by motorists. Level of Service D represents below average of fair operating conditions where drivers occasionally have to wait through more than one signal cycle to proceed through the intersection. Level of Service E is considered capacity conditions and Level of Service F represents jammed conditions. Table 42 of the Technical Background Report provides an estimate of the V/C ratio and LOS on major roadways in the City.

The table reflects roadways that were operating at Level of Service C or lower based on daily capacities derived by DKS Associates and the City Traffic Engineering staff, utilizing Level of Service definitions established by the Citizen Advisory Committee which reflect regional driver's perceptions of traffic conditions. Level of Service C was "acceptable" as a volume-to-capacity ratio up to 0.69. Generally, the upper limit of Level of Service C is defined by traffic engineers to be a volume-to-capacity ratio of 0.79.

The most significant information to be drawn from capacity analysis is that the existing circulation system generally has adequate capacity for existing development. On many of the facilities, the congestion problems are localized and may be attributed to inconsistencies in the number of through travel lanes. For example, capacity deficiencies (V/C ratios worse than 0.69) are currently experienced on Highland Avenue, Baseline Street and Redlands Boulevard near I-215, on Mill Street east of Waterman Avenue, on

Waterman Avenue near Hospitality Lane, 40th Street between Sierra and Mountain View, Sierra Way between 40th and 5th Streets, Del Rosa Drive near Route 30, 9th Street between Tippecanoe and Palm, and on "E" Street near its southern end.

B. PUBLIC TRANSIT

This section summarizes local and regional public transportation services.

1. Public Bus System

Omnitrans, formed in 1973, is the principal provider of public transportation service in the San Bernardino Planning Area. Omnitrans operates 21 local-fixed routes, 14 of which serve the San Bernardino Planning Area. General service hours are between 6:00AM and 8:00PM, Monday through Saturday. The Southern California Rapid Transit District provides express bus service between San Bernardino-Riverside and Los Angeles (Line 496) under contract with Omnitrans and the Riverside Transit Agency. Service is provided Sunday through Saturday.

2. Intercity Services

Intercity bus service is provided to downtown San Bernardino by Greyhound and Continental Trailways which recently merged. The Greyhound bus depot is at 6th and G Streets.

3. Taxi Services

Taxi service in the San Bernardino Planning Area is provided by two companies including the Yellow Cab Co. and the Checker Cab Co. Both of these services are controlled by the same owner, who estimates that over the last five years, ridership has remained constant at approximately 400 fares per day.

C. RAIL SERVICE

The Atchison, Topeka, and Santa Fe (AT&SF) maintains extensive service facilities and freight classification yards just west of downtown while the Southern Pacific's largest classification yard in the Western United States is just to the southwest in Colton.

1. Passenger Service

Presently San Bernardino is served by four Amtrak trains (two eastbound, two westbound) daily. Both trains, the Southwest Chief and the Desert Wind, serve Los Angeles, to the west and Chicago to the east via northern and southern routes. The station, in traditional Santa Fe Railroad Spanish style, is located on Third Street just east of Mt. Vernon Avenue to the west of downtown.

2. Freight Service

The AT&SF and Southern Pacific operate all freight service in the San Bernardino area. The Santa Fe's second subdivision connects San Bernardino with Los Angeles via Pomona and Pasadena. Including Amtrak service, approximately eight trains per day operate on this line. (Note the California PUC classifies a train as single locomotive or a mile long freight). The Santa Fe's third subdivision operates south also runs to Los Angeles via a southern route through Riverside and Orange Counties. Between San Bernardino and Riverside, the Santa Fe operates 50 trains per day. The third Santa Fe line pushes east over Cajon Pass. This line also sees about 50 trains per day.

D. PARKING

Throughout the San Bernardino Planning Area, sufficient parking for each land use is generally provided whether directly on-site or along the street. Since the outlying, lower density areas have ample parking supply, the problem areas are the older strip commercial developments along streets such as Baseline Street, Highland Avenue and Mt. Vernon Avenue, and in the Central Business District.

E. BICYCLE FACILITIES

The City removed Class II bike lanes and Class II bike routes from the street system because of maintenance and safety concerns. The routes were underutilized and maintenance costs became a problem. The City has never had Class I bike paths. However, the Verdemont Area Plan designated bike paths, lanes and routes, but none have been developed.

F. AVIATION

There are four airports in the general vicinity of San Bernardino, however, none of these are located within the Planning Area. Air carrier and air cargo operations are provided at Ontario Airport which is located southwest of the Planning Area. In 1986, Ontario Airport handled 4.2 million air passengers (MAP), a 16 percent increase over the 1985 activity (3.6 MAP). (Air passenger activity at the airport has increased steadily since 1982). There are two general aviation airports in the area, one to the west in Rialto, the second to the southeast in Redlands, and Riverside Municipal Airport, 12 miles to the south in Riverside. The Rialto Airport is also used as the base for the County Sheriff's helicopters, which are used on occasion by the City.

The sixth airport in the area is Norton Air Force Base which is restricted to military use. This air field is situated in the southwest corner of the City. Proposals have been made to make Norton Air Force Base a joint military-commercial facility.

There are also four helipads in the general planning area, with a fifth planned for the future. The four helipads are private-use facilities and are situated at the County Medical Complex Hospital, St. Bernardino Medical Center, Community Hospital, and the

Sheriff's office. A proposed heliport in the Tri-City area would serve public aviation uses.

G. FUTURE CONDITIONS

The existing land uses in the City of San Bernardino generate a total of 1,234,600 daily vehicle trip ends which when distributed over the existing roadway network result in the traffic volumes currently being experienced on the streets in San Bernardino. The build-out of the land uses included in the General Plan Land Use Element will significantly increase the total number of daily trips generated in the City.

In order to forecast future traffic conditions and evaluate alternative land use and circulation systems, a travel demand forecasted model was developed. The microcomputer model was developed using the TRANPLAN software and was based on the regional model developed by Caltrans for the Route 30 Freeway EIR. It, therefore, includes the regional growth and programmed regional transportation improvements (e.g., Route 30 Freeway) forecast by SCAG and Caltrans for the year 2010. The focus of the model is on the City of San Bernardino and areas immediately surrounding the City. It includes 130 traffic analysis zones (TAZs) of which 75 are within the City of San Bernardino. An additional 33 zones were identified to represent trips to/from locations further outside the study area.

The worst case assumption that every parcel in the City could build out to the maximum allowable density provided for under the General Plan would result in the potential for future vehicle trip ends to increase to 3,372,000 daily trip ends, a nearly three-fold increase. The programs and policies of the Circulation Element which are designed to encourage the use of alternate modes of transportation (e.g., transit and ridesharing) were estimated to reduce total future trip generation by about 8 percent to 3,104,900 daily vehicle trip ends. This represents a 250 percent increase over existing trip generation.

By comparison, the three land use alternatives evaluated previously during preparation of the General Plan generated 3.24 million (262% increase), 3.49 million (283% increase) and 4.56 million (370% increase) trips.

Each of the alternatives evaluated, including the Draft Land Use Element, were first evaluated by assigning the traffic to the transportation network associated with the previous Circulation Element. This was done to identify areas of the City where additional facilities above and beyond those included in the previous Circulation Element should be added or areas where the travel demands associated with the Draft Land Use Element do not warrant the construction of new facilities. In all cases, it was assumed that the facilities shown on the Circulation Element would be built out to the roadway standards for that classification of roadway (e.g., major highways would be fully built out with 100 feet of right-of-way and 72-80 feet of pavement).

The primary locations where significant capacity deficiencies were forecast were in the areas south of the downtown area along "E" Street and Waterman Avenue. For that reason, the Circulation Element recommends construction of a new north-south roadway from the Tri-City area north connecting to Lena Road. A limited amount of demand (approximately 2,500 vehicles per day) was forecast for the previously proposed east-west roadway connecting the CSUSB area to Waterman Avenue, so the Draft Circulation Element proposes deleting this unbuilt roadway.

The increase in total citywide trip generation at build-out of the General Plan will require major improvements to the transportation system; implementation of new roadways and completion of those partially implemented improvements in transit service, transportation demand management program, parking and implementation of programs to reduce the potential for negative impacts on residential areas. The policies and programs included in the Circulation Element have been designed to provide a transportation network with adequate capacity to accommodate the build-out of the Land Use Element and include mechanisms to monitor and maintain acceptable traffic conditions over time as development occurs.

The following issues regarding circulation were identified:

ISSUES

- A. A system of roadways must be implemented that provides adequate capacity to accommodate traffic generated by land uses in the City at an acceptable Level of Service to the community.
- B. The impact of traffic on adjacent land uses should be minimized.
- C. The impacts of truck traffic should be minimized, particularly in residential areas.
- D. Alternate modes of transportation should be encouraged to reduce automobile traffic and to provide options for both commute and recreational travel by alternate modes
- E. The impact of transmission lines and pipelines on adjacent land uses should be minimized.
- F. Railroad services for the movement of people and goods should be available to the citizens of San Bernardino but their impact on adjacent land uses should be minimized.
- G. The citizens of San Bernardino need to have access to air transportation services but the impacts of air service on the City should be minimized.

H. An adequate supply of parking is necessary to accommodate the demands of developments in the City.

I. The availability of parking in some areas is limited.

GOALS, OBJECTIVES AND POLICIES

The following presents the goals, objectives and policies for circulation in the City of San Bernardino. At the end of each policy is listed in parenthesis a capital "I" and number which corresponds to its implementation program presented in the subsequent section of this element.

Goal

It shall be the goal of the City of San Bernardino to:

- 6A Achieve an integrated, balanced, safe and efficient transportation system that accommodates the demand for movement of people, goods and services throughout the City generated by the Land Use Element.

Objective

It shall be the objective of the City of San Bernardino to:

- 6.1 Provide a transportation system through the design and construction of individual improvement projects that provides the capacity necessary to accommodate the levels and types of traffic forecast to be generated by the land use plan.

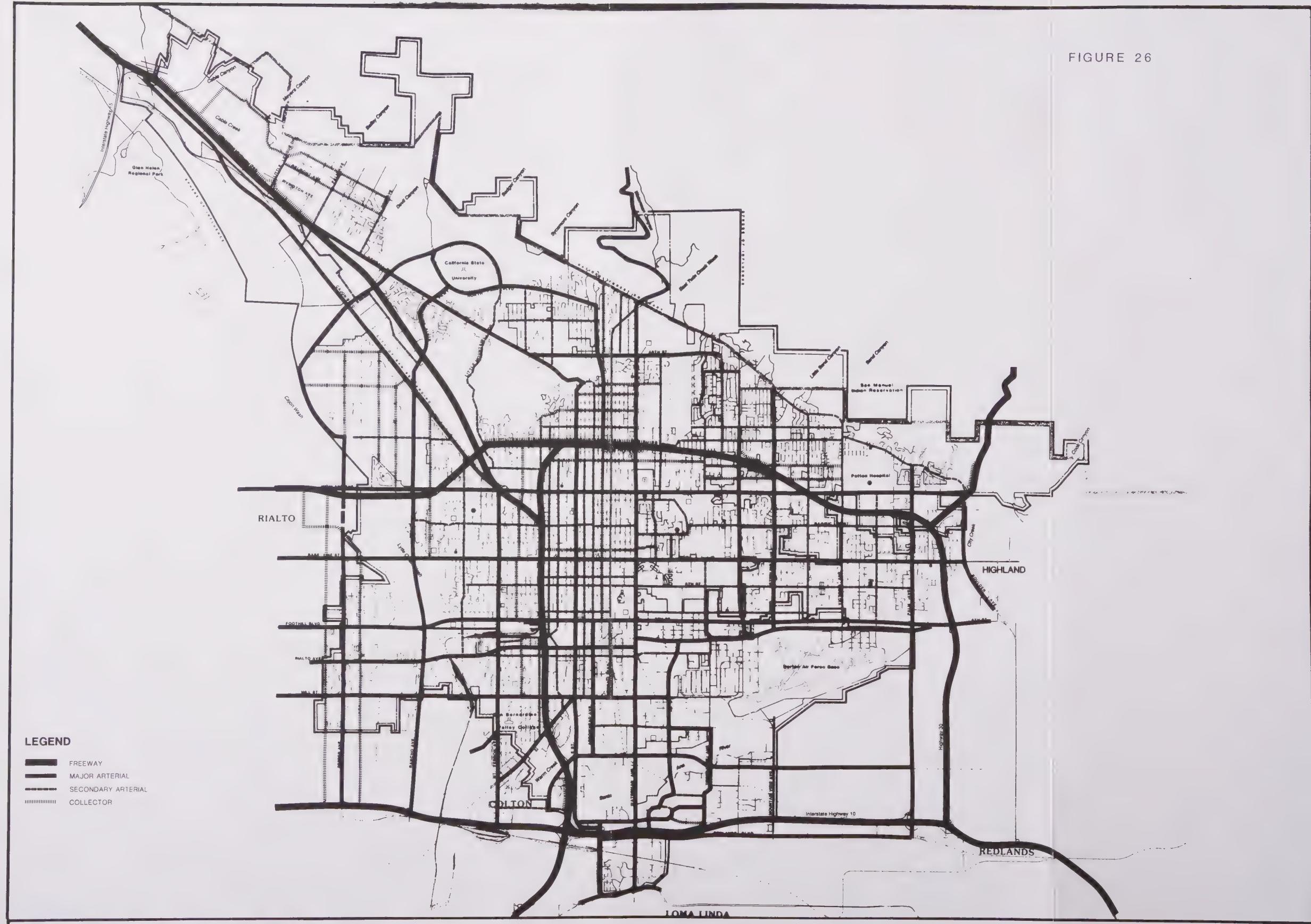
Policies

It shall be the policy of the City of San Bernardino to:

- 6.1.1 Review annually the functioning of the street system as part of the Capital Improvement Program to identify problems and shall actively pursue implementation of improvements identified as needed in a timely manner (I6.1).
- 6.1.2 Require that all City streets be constructed in accordance with the Circulation Plan (Figure 26) and the construction standards established by the Director of Public Works/City Engineer (I6.2, I6.11).
- 6.1.3 Require appropriate right-of-way dedications of all new developments to facilitate construction of roadways shown on the Circulation Plan (Figure 26), including protection of right-of-way for future roadways not yet constructed (I6.3, I6.11).
- 6.1.4 Reserve the rights-of-way required for highways designated in the arterial highway and prohibit land uses and development that could preclude the timely acquisition of these lands for roadway purposes (I6.3).



FIGURE 26



CIRCULATION PLAN

City of San Bernardino General Plan

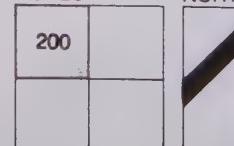
ENVICOM CORPORATION In association with

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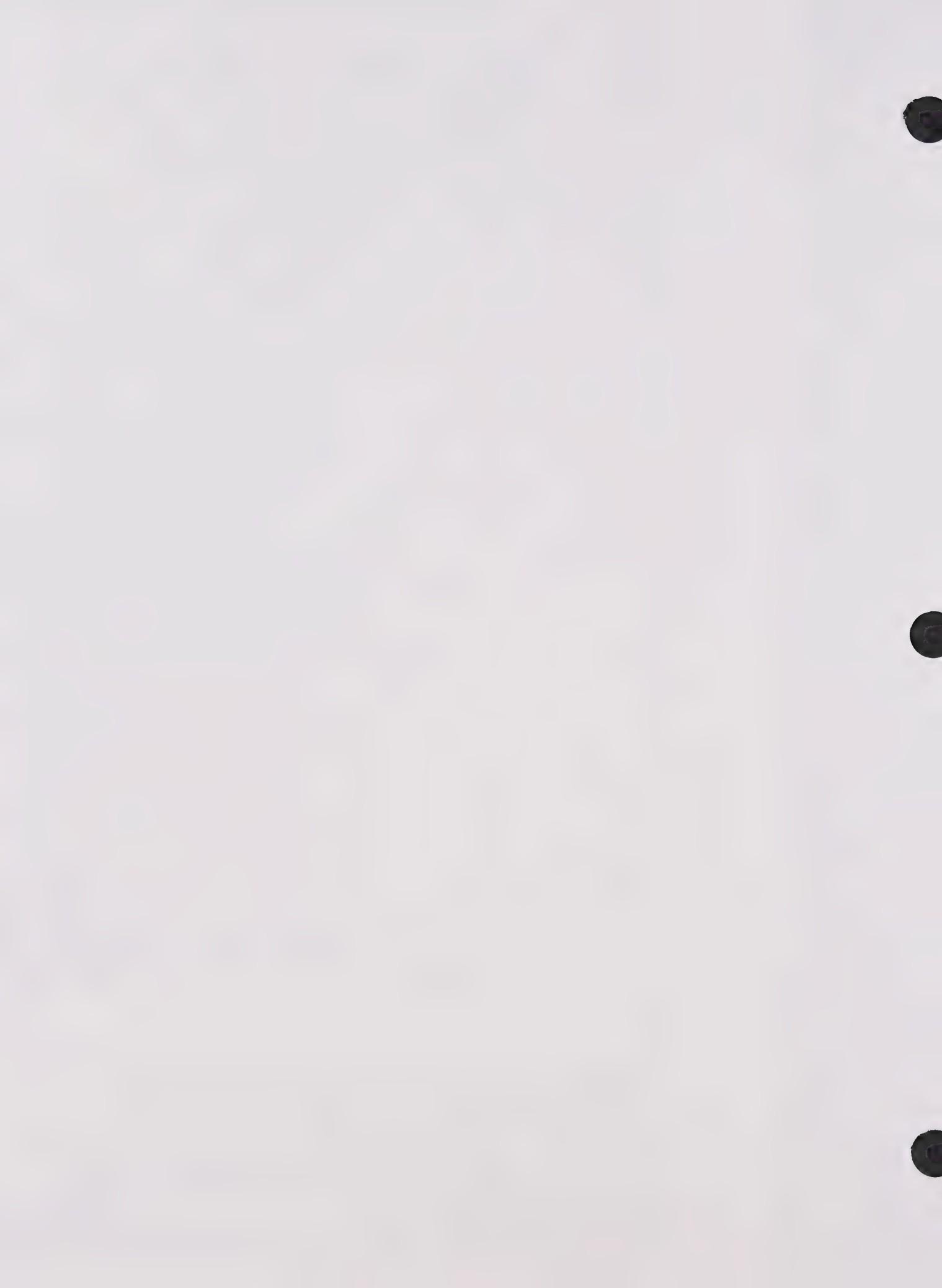


ACRES



NORTH





- 6.1.5 Direct the Public Works Department to be responsible for developing and enforcing access standards regarding new driveways and other encroachments to arterial highways so as to minimize side frictions that are detrimental to safe and efficient functioning of arterials (I6.4).
- 6.1.6 Assign priority to safety over other factors in the engineering design standards for major and minor arterial highways (I6.2).
- 6.1.7 Provide one-quarter mile minimum spacing between traffic signals, where possible, to optimize interconnection, signalize only warranted locations, and strive to implement signal timing that will result in fuel conservation (I6.5).
- 6.1.8 Prohibit, where feasible, left-turn movements to and from any driveway within 250 feet of an existing or planned signalized intersection (I6.4).
- 6.1.9 Use international symbol signing for all regulatory, warning, and guide signing communication with travelers (I6.6).
- 6.1.10 Install on-street reflectorized raised pavement markers for lane delineation on major and secondary arterials where appropriate (I6.2).
- 6.1.11 Correlate approvals of new development with roadway improvements that would be necessary to either maintain an acceptable level of service and other performance characteristics applicable to the classification of the affected roadways or reduce the development's impact to below City established levels of significance, and that development not be authorized until measures (improvement, plan, funding, inclusion in the Capital Improvement Program, or collection of development impact fees) are in place to construct any necessary improvements, provided that the development is guaranteed an equitable reimbursement for improvements provided above and beyond those solely necessary to accommodate that development's traffic (I6.7, I6.8).
- 6.1.12 Require that cumulative and downstream impacts of new development on the circulation system be evaluated and adequately mitigated concurrent with development where practical, provided that the development is guaranteed an equitable reimbursement for improvements provided above and beyond those solely necessary to accommodate that development's traffic (I6.7, I6.8, I6.13).

- 6.1.13 Require that the burden of costs of roadway improvements including traffic signal installations be equitably distributed among property owners/developers benefiting from new development and highway users (I6.7, I6.8).
- 6.1.14 Link the funding and construction of circulation improvements to development, provided that the development is guaranteed an equitable reimbursement for improvements provided above and beyond those solely necessary to accommodate that development's traffic, and development shall be regulated by intensity, type, location and phasing/timing to ensure the provision of peak hour level of service (LOS) "C" operation (I6.7, I6.8).

Objective

It shall be the objective of the City of San Bernardino to:

- 6.2 Minimize the impact of existing and future highways on adjacent land uses and ensure compatibility between land uses and highway facilities to the extent possible.

Policies

It shall be the policy of the City of San Bernardino to:

- 6.2.1 Work with Caltrans to insure that construction of new freeways (Route 30) and/or widening of existing freeways (I-215, I-10) include appropriate sound walls or other mitigating noise barriers to reduce noise impacts on adjacent land uses (I6.9, I6.11).
- 6.2.2 Locate noise sensitive land uses (e.g., schools, hospitals) away from heavily traveled highway facilities, if practical, consistent with the policies of the Land Use and Noise Elements (I6.10).
- 6.2.3 Require, wherever possible, a buffer zone between residential land uses and highway facilities (I6.10).
- 6.2.4 Continue to participate in forums involving the various governmental agencies such as Caltrans, SanBAG, SCAG, and the County which are intended to evaluate and propose solutions to regional transportation problems as they relate to the City (I6.11).
- 6.2.5 Provide for the development of mixed-use residential-commercial-office developments to increase opportunities to work and shop close to home and to conduct errands close to work (I6.12).

- 6.2.6 Provide for the development of multi-family residential areas near job centers to maximize opportunities for people to live and work in close proximity to one another (I6.12).
- 6.2.7 Require that a traffic impact study be prepared and submitted to the City for review and approval for all new developments or substantial improvement to existing developments which will result in significant increased trip generation so that an adequate evaluation of potential significant traffic impacts associated with proposed new developments is obtained prior to project approval and require the implementation of appropriate mitigation measures prior to or in conjunction with project development (I6.13).
- 6.2.8 Require that adequate access be provided to all developments in the City including, where feasible, secondary access, to facilitate, at a minimum, emergency access and egress for the development (I6.4, I6.14).

Objective

It shall be the objective of the City of San Bernardino to:

- 6.3 Develop a transportation system that provides adequate facilities for heavy vehicle traffic and reduces the impact of such traffic and through traffic on local circulation and residential environments.

Policies

It shall be the policy of the City of San Bernardino to:

- 6.3.1 Implement a preferred truck route network and sign and enforce truck weight restrictions accordingly, except in the case of local deliveries (I6.15, I6.17).
- 6.3.2 Regulate on-street parking of trucks where necessary to discourage truck parking on primarily residential streets or in other locations where they are incompatible with adjacent land uses (I6.15, I6.16).
- 6.3.3 Prepare neighborhood protection plans for areas of the City where diversions of heavy vehicle traffic from the preferred truck route network to local residential streets becomes a significant enforcement problem (I6.16).
- 6.3.4 Calculate traffic indices on the basis of estimated percent of truck traffic and forecast average daily traffic (I6.15).

- 6.3.5 Regulate the issuance of permits to transport hazardous materials through San Bernardino and require that any such materials generated within the City must be transported to the nearest freeway via the shortest route using arterial streets, never local streets (I6.17).

Objective

It shall be the objective of the City of San Bernardino to:

- 6.4 Accommodate alternative modes of transportation to the private automobile in the City, including non-motorized transportation (bicycle and pedestrian), and public transportation and recreational trails.

Policies

It shall be the policy of the City of San Bernardino to:

- 6.4.1 Develop and promote interconnected pedestrian facilities and alternate modes of transportation (I6.1, I6.18, I6.20).
- 6.4.2 Work cooperatively with appropriate regional agencies to facilitate development of recreational trails, including an equestrian trail system, that tie into other facilities such as the Santa Ana River Trail system and provide facilities along the base of the foothills, as well as connections between these facilities (I6.1, I6.19, I6.20).
- 6.4.3 Accommodate the needs of bicyclists by developing a plan for safe bicycle facilities not on arterial highways (I6.1, I6.20, I6.21).
- 6.4.4 Paint pedestrian crosswalks only at signalized intersection locations or where deemed necessary by the City Traffic Engineer and approved by the Mayor and Common Council (I6.2, I6.18).
- 6.4.5 Encourage direct pedestrian connections between commercial uses and adjacent residential development through the site plan review process (I6.18).
- 6.4.6 Require the provision of adequate pedestrian access for new development projects through its standard site plan review process (I6.18).
- 6.4.7 Require the installation of handicapped ramps on all new sidewalks unless precluded by physical constraint or where drainage problems would be created (I6.18).
- 6.4.8 Encourage the installation of sidewalks and wheelchair ramps in existing neighborhoods, where appropriate (I6.1, I6.18).

- 6.4.9 Coordinate with SanBAG, Omnitrans and other transit providers, to ensure that transit services are available to the transit dependent either via fixed-route transit service or paratransit (I6.11).
- 6.4.10 Coordinate with Omnitrans on the continuing development of a comprehensive City-wide public transit system, including opportunities for convenient transfer locations in downtown San Bernardino (I6.11).
- 6.4.11 Pursue implementation of a shuttle service connecting regional commercial and employment centers in the downtown and Tri-City areas (I6.22).
- 6.4.12 Encourage measures which will reduce the number of vehicle-miles traveled during peak periods, including the following examples of these types of measures:
- a. Incentives for car-pooling and van-pooling.
 - b. Preferential parking for car-pools and van-pools.
 - c. Conveniently located bus stops, with shelters (I6.22).
- 6.4.13 Promote the use of car-pools and van-pools by providing safe, convenient park-and-ride facilities (I6.22).

Objective

It shall be the objective of the City of San Bernardino to:

- 6.5 Provide for the development of major transmission lines/pipelines throughout the City while not adversely impacting adjacent land uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 6.5.1 Require in new developments that utilities be provided underground within public rights-of-way, consistent with the long-range infrastructure needs of the City, as approved by the City Engineer.
- 6.5.2 Require that new developments size their improvements to service the upstream needs of future developments, consistent with the long-range infrastructure needs of the City, as approved by the City Engineer.

Objective

It shall be the objective of the City of San Bernardino to:

- 6.6 Encourage the railroads and other public agencies to develop and maintain adequate railway facilities within the City to adequately serve existing and future needs for transport of goods and people, while minimizing the impacts on adjacent land uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 6.6.1 Coordinate with SanBAG, SCAG, the County and other regional, state or federal agencies and the railroads regarding plans for the provision of passenger, commuter and high speed rail service within the City and linking the City to adjacent cities and counties (I6.11).
- 6.6.2 Encourage the provision of a buffer between residential land uses and railway facilities and encourage the construction of sound walls or other mitigating noise barriers between railway facilities and adjacent land uses (I6.10).
- 6.6.3 Identify existing and future high volume at-grade railroad crossings and pursue available sources of funding (e.g., California Public Utilities Commission) to implement grade separations where appropriate (I6.23).

Objective

It shall be the objective of the City of San Bernardino to:

- 6.7 Ensure that air transportation services are available to residents and businesses in San Bernardino but that the provision of such services does not significantly negatively impact the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 6.7.1 Coordinate with regional agencies to ensure that access is maintained and enhanced between the City of San Bernardino and commercial airports in nearby cities, such as Ontario (I6.11).

- 6.7.2 Evaluate accessibility to Norton Air Force Base consistent with the policies requiring review and approval of mitigation measures to accommodate trips generated by new developments such as the potential joint use of Norton Air Force Base for military and commercial aviation (I6.24).

Goal

It shall be the goal of the City of San Bernardino to:

- 6B Achieve a balance between parking supply and demand in every area of the City so that an adequate supply of parking is provided to meet the parking demands generated by the Land Use Element.

Objective

It shall be the objective of the City of San Bernardino to:

- 6.8 Ensure that developments provide an adequate supply of parking to meet the needs, on-site or within close proximity to the developments generating the demand for parking.

Policies

It shall be the policy of the City of San Bernardino to:

- 6.8.1 Periodically review and update the City's development code to ensure that parking requirements for new developments accurately reflect the demand for parking generated by each land use within the City, conducting this review at least once each five years (I6.25).
- 6.8.2 Require that all new developments provide adequate parking to meet their parking demands on-site or in consolidated parking facilities within close proximity to their site, except for developments within the Central City Parking District (I6.26, I6.27).
- 6.8.3 Continue to expand the supply of public parking in off-street parking facilities in downtown San Bernardino (I6.26, I6.27).
- 6.8.4 Continue to provide an in-lieu parking fee option for developments in the downtown area to satisfy all or part of their parking requirement through the payment of an in-lieu fee which will be utilized to provide parking in consolidated public parking facilities (I6.28).

- 6.8.5 Require that new developments submit a parking demand analysis to the City Engineer for review and approval whenever a proposal is made to provide less than the full code requirement of parking for each individual land use on-site at the proposed development (I6.29).
- 6.8.6 Consider all concepts relating to joint use, shared parking and off peak demand to maximize the utilization of existing and proposed parking in the Central Business District (I6.26).

Objective

It shall be the objective of the City of San Bernardino to:

- 6.9 Ensure that adequate parking is available in residential neighborhoods of the City to meet the needs of residents and their visitors.

Policy

It shall be the policy of the City of San Bernardino to:

- 6.9.1 Develop parking and traffic control plans for those neighborhoods which are adversely impacted by spillover parking and traffic (I6.16, I6.26).

IMPLEMENTATION PROGRAMS

The following indicates the programs which shall be carried out by the City of San Bernardino to implement the goals, objectives, policies and standards of the Circulation Element. Each program is preceded by a capital "T" and a number which is referenced by the pertinent policy which it implements in the preceding section.

I6.1 Prepare Annual Five-Year Capital Improvement Program

The City shall prepare an annual update to its Five-Year Capital Improvement Program. This shall include the list of infrastructure improvements intended to be implemented by the City over the next five-year period, a priority ranking of those projects, and identification of the available sources of funding to finance implementation of each improvement project.

I6.2 Design Standards

The City shall develop and publish design standards for each type of roadway facility shown on the Circulation Plan. These standards shall stipulate the required right-of-way dedication, pavement width, pavement cross-section, parkway treatment, median design where appropriate, maximum allowable grades and radius of curvature, as determined appropriate by the Director of Public Works/City Engineer. The Director of Public Works/City Engineer shall, to the best of his ability, develop standards for roadways in the City of San Bernardino which are compatible with the standards established by adjacent jurisdictions and the County of San Bernardino, and which take into consideration the recommended standards published by the American Public Works Association, Institute of Transportation Engineers, and State of California Department of Transportation. These standards shall also take into consideration the objectives and policies of the Urban Design Element regarding the appropriate locations of median islands. At a minimum, these standards shall be reviewed and updated once every five years.

I6.3 Right-of-Way Dedication

Through the Site Plan Review process, the City shall require the dedication of appropriate rights-of-way to allow for the construction of roadways shown on the Circulation Plan in accordance with the roadway standards established by the Director of Public Works/City Engineer.

I6.4

Access Standards

The City shall develop access standard guidelines for use in the Site Plan Review process which specify appropriate locations for driveways in relation to adjacent intersections and driveways, the minimum number and size of driveways per site based on the level of intensity of development, and appropriate locations for median openings to provide left turns into/out of driveways. These guidelines shall be developed by the Director of Public Works/City Engineer and reviewed and updated at least once every five years.

I6.5

Traffic Signal Timing and Installation

As part of its annual Capital Improvement Program, the City shall review the need for installation of additional traffic signals. The City shall also allocate or seek funding (e.g., from the State of California Fuel Efficient Traffic Signal Improvement Program) for the periodic evaluation of signal timing in the City so as to maintain efficient signal phasing and timing responsive to the current traffic volumes being experienced in the City.

I6.6

Signage Standards

The City shall maintain signage standards compatible with those published by the Federal Highway Administration in the Manual of Uniform Traffic Control Devices and the State of California Department of Transportation Traffic Manual. These standards shall also take into consideration the objectives and policies of the Urban Design Element.

I6.7

Infrastructure Cost Allocation/Reimbursement Program

The City shall develop a program for the equitable allocation of costs of infrastructure improvements amongst developments which generate the need for said improvements and shall establish a program to reimburse developers who pay more than their pro rata share of said costs at the time of their project's development when additional funds are contributed to the City by subsequent developers.

I6.8

Traffic Systems Fee

The City of San Bernardino Municipal Code (Chapter 3.26) requires that all new development and any substantial improvement which results in a net increase in the number of vehicle trips generated by a development pay a Traffic Systems Fee to the City to assist in financing improvements to the City's traffic network. The City shall annually review the Traffic Systems Fee to determine that it adequately reflects the current cost of financing the traffic network improvements necessary to accommodate

the traffic generated by new developments and that it not exceed the pro rata share of said developments for the cost of traffic system improvements to which the fee will be applied.

I6.9

Noise Barriers

The City shall develop a master plan of noise barriers identifying the locations along existing and proposed freeways where sound walls are desired by the City. The City shall negotiate with Caltrans for inclusion of sound walls in future freeway improvement projects, consistent with the master plan, and shall propose inclusion of San Bernardino sound wall construction projects in the State Transportation Improvement Program (STIP). In addition, as part of the site plan review process for new developments adjacent to existing or proposed freeway rights-of-way, the City shall require the developer to construct appropriate sound walls. The City shall consider including sound wall construction projects as part of the City's Five-Year Capital Improvement Program.

I6.10

Buffer Sensitive Land Use

As part of the site plan review process, the City shall encourage developers to locate noise sensitive land uses away from heavily traveled roadways through the provision of landscaped buffers between such uses and the roadways.

I6.11

Inter-Agency Coordination

City staff shall participate in meetings with other governmental agencies, where practical, whenever program or policy discussions relating to transportation facilities that would affect the City of San Bernardino are being discussed.

I6.12

Implement Land Use Element

The City shall implement the General Plan land use policies through mechanisms such as revisions to the San Bernardino Municipal Code, including revisions to the zoning map and zoning classifications and adoption of development standards for various types of land uses, including commercial and residential land uses.

I6.13

Traffic Impact Analysis Standards

The City shall establish guidelines for the preparation of traffic impact studies related to new developments in the City of San Bernardino. These guidelines shall include, at a minimum, the methodology for calculating trips generation by land use category, the methodology for calculating

peak hour level of service, the approach to development of project trip distribution assumptions and cumulative traffic projections. The guidelines shall also establish the definition of a significant traffic impact including downstream impacts and shall provide for the review and approval by the City Engineer of all key assumptions to be utilized in the traffic impact analysis prior to its completion.

I6.14

Secondary Access Guidelines

The Director of Public Works/City Engineer shall develop guidelines for use in the site plan review process which specify the requirements for multiple access routes to development projects. These guidelines shall include the maximum allowable length of a cul-de-sac (simple access street) and the maximum number of dwelling units to be accommodated by a single access route. These guidelines shall also establish the parameters for design and use of emergency-access-only secondary access routes.

I6.15

Truck Routes

The City shall develop a truck route plan identifying which roadways will be posted as designated truck routes and which roadways will be posted with weight limit restrictions to discourage their use by heavy vehicles. The truck route plan shall be reviewed and updated at least once every five years to respond to the changing pattern of development in the City.

I6.16

Neighborhood Protection Plans

The City shall develop neighborhood protection plans for residential areas of the City where traffic and parking intrusion from adjacent commercial areas results in a significant negative impact on the residential character of the neighborhood. Such plans shall be formulated with citizen input to incorporate the desires of residents and shall address the following types of mechanisms which might be appropriate for certain areas of the City: traffic diverters, street closures, etc. The City shall adopt a procedure to: (1) to define the boundaries of each neighborhood protection plan area, (2) determine when such a plan is warranted, and (3) ascertain community consensus amongst residents as to the specific proposals included in the plan.

I6.17

Hazardous Materials Ordinance

The City shall adopt an ordinance regulating the transportation of hazardous materials within the City. This ordinance shall define materials considered hazardous and/or toxic and designate the specific roadways on which the transport of such materials is permitted as well as those on

which it is prohibited, either at all times or during certain hours of the day. The hazardous materials ordinance shall be consistent with the truck route plan adopted by the City.

I6.18

Pedestrian Master Plan

The City shall develop a master plan for pedestrian facilities in the City which will address the needs for off-street pedestrian trails, locations where sidewalks need to be improved (e.g., handicap ramps installed) or constructed, areas of high pedestrian activity, and prioritize the locations where improved pedestrian facilities are desired. The Pedestrian Master Plan shall be consistent with the policies of the Land Use, Urban Design, Parks and Recreation Elements of the Master Plan and shall be reviewed annually as a source of input to the City's Five-Year Capital Improvement Program.

I6.19

Equestrian Trail Master Plan

The City shall develop a Master Plan for equestrian trails which identifies the appropriate locations for interconnected equestrian trail facilities. The City will work with the National Forest Service, Army Corps of Engineers, County Flood Control District, the State of California, adjacent jurisdictions, and private property owners to develop a master plan which links trails along the Santa Ana River, other flood control channels (where feasible), and the foothills of the San Bernardino Mountains. The Equestrian Trail Master Plan shall include procedures for dedication of rights-of-way and for protection of rights-of-way until such time as they are dedicated or purchased by the City or other public or private entity for dedication.

I6.20

Recreational Trails Committee

The City shall establish a recreational trails committee, whose members shall be appointed by the Mayor and Council, to advise the Council in the development of recreational trail facilities, including not only equestrian trails, but also pedestrian and bicycle facilities.

I6.21

Bicycle Master Plan

The City shall develop a master plan for bicycle facilities indicating where bicycle routes, lanes and/or paths will be developed in the City. The plan shall be developed to promote a safe bicycling environment and therefore shall not encourage bicycle routes along major arterials but rather along collector and local streets. The bicycle master plan shall be reviewed annually as a source of input to the City's Five-Year Capital Improvement Program.

Transportation Demand Management Plan and Ordinance

In order to implement the numerous transportation demand management policies included in the Circulation Element which are intended to reduce the quantity of vehicular trips and trip length, the City shall develop a Transportation Demand Management Plan and Ordinance containing specific programs for implementation by the City as well as specific requirements to be imposed on private developments as conditions of project approval. The Plan and Ordinance shall be consistent with regional policies of SCAG, SanBAG and the Air Quality Maintenance Board. Measures to be considered during the preparation of the Plan and Ordinance include, but are not limited to, the following:

- Retaining a City Transportation Coordinator to monitor, promote and coordinate transit/ride-sharing programs and other transportation demand management (TDM) programs among employees (particularly those with less than 100 employees) and residents.
- Requiring developers of commercial developments to prepare and submit TDM plans to the City as a condition of approval.
- Specify goals for the reduction of single-occupant automobile trips generated by developments, consistent with the regulations of the Air Quality Maintenance District, and establish performance criteria and penalties for non-attainment of said goals.
- Incorporate transportation demand management objectives into the site plan review process, such as preferential parking or ride-share vehicles, locations for transit, car-pool/van-pool passenger loading areas, bicycle storage facilities, etc.
- Establishment of a dedicated shuttle system to connect the Tri-City/Commerce Center area to the downtown and provide connections to the regional commercial centers along the E Street corridor and commercial office developments along Waterman Avenue. This will be the responsibility of Omnitrans with cooperation by the City.
- Locate park-and-ride facilities in the City either on public property (e.g., Caltrans right-of-way at freeway interchanges) or on private property (e.g., shopping center parking lots) where agreements can be negotiated with the property owner for temporary use of the parking for a park-and-ride facility.

I6.23

Railroad Grade Crossing Separations

The City shall annually review operations of at-grade railroad crossings, in terms of number of daily railroad operation, average daily traffic volume on the roadway, and accident history during the past year, to determine which crossings warrant consideration for grade separation. The City shall submit applications to the State for funding of such crossings when appropriate and shall consider the inclusion of railroad grade separations as candidate projects for the City's Five-Year Capital Improvement Program.

I6.24

Norton Air Base Access Study

Should it be proposed that Norton Air Base be operated as a joint-use military and commercial aviation facility, the City shall require that a ground access study be prepared by the project proponents to demonstrate that adequate access can be provided to the airport site and to provide a mechanism for financing the improvements necessary to provide such access.

I6.25

Development Code Parking Requirements

The City shall review the parking requirements included in the City's Development Code for all land use categories, at least once every five years, to either confirm that they adequately reflect current demands or adjust them to reflect current demand. Empirical data shall be utilized where available to determine current parking demands by land use type in the City of San Bernardino.

I6.26

Parking Standards

The Director of Public Works/City Engineer shall develop and publish parking facility design standards to which all new developments in the City must conform in the design of their parking facilities. These standards shall at a minimum include minimum stall, aisle and driveway dimensions for alternative parking configurations, specify the allowable percentage of compact car spaces, address the minimum requirements for landscaping of surface parking lots, specify the maximum allowable grades and minimum widths of ramps between floors in parking structures, and specify the dimensions for non-standards car spaces (e.g., handicapped, compact, ride-share).

I6.27

Parking Districts

The City shall maintain the existing Central City Parking District and shall periodically review the need to expand the District or create additional

parking districts in areas of the City where either adequate off-street parking has not been provided by developments approved in previous years under prior development codes, or in areas where the City desires to encourage consolidated parking facilities rather than parking facilities at each individual development. The City shall consider alternative mechanisms for the financing of parking district facilities, including but not limited to Parking Revenue Bonds, Capital Improvement Program funding, Special Assessment Districts, Redevelopment Tax increment financing, General Obligation Bonds, or in-lieu fee programs.

I6.28 Parking In-lieu Fee Program

The City shall continue to provide an in-lieu fee option for developments located in City Parking Districts. The City shall annually review the program to set the appropriate level of the in-lieu fee based upon the current cost of providing parking facilities and the specific plans for new parking facilities in the District.

I6.29 Parking Demand Analysis

The City shall establish an ordinance requiring that whenever a proposal is made to provide less than the full code requirement of parking for each individual land use on the proposed development site that a parking demand analysis be submitted to the City Traffic Engineer for review and approval by the proponent of the development. The parking demand analysis must be reviewed by the Planning Commission and approved by the City Traffic Engineer as part of the site plan approval process prior to issuance of a building permit. The City Traffic Engineer shall develop and publish guidelines for the content of the parking demand analysis stipulating the acceptable methodology to be utilized in its preparation.

7.0 UTILITIES

INTRODUCTION AND STATUTORY REQUIREMENTS

The State Office of Planning and Research (OPR) General Plan Guidelines prescribe that the General Plan contain "policies and plan proposals for the development, improvement, and timing of major sewer, water, and drainage facilities" as well as "policies, plan proposals, and standards for the location of pipelines and facilities for the transmission of electricity."

The Utilities Element of the Infrastructure and Community Services Element addresses the following:

- A. Wastewater Collection and Treatment,
- B. Water Transmission, Distribution, Storage, and Treatment,
- C. Storm Drains and Flood Control,
- D. Solid Waste Collection and Disposal,
- E. Electricity,
- F. Natural Gas,
- G. Telecommunications, and
- H. Geothermal Resources.

OVERVIEW OF EXISTING CONDITIONS

This portion of the Utilities Element provides a brief overview of the existing conditions of utility resources in the San Bernardino planning area. The information included herein has been summarized from the February 1988 "Technical Background Report" (pages 3-38 through 3-61) prepared as part of the City's General Plan Update Program.

A. WASTEWATER COLLECTION AND TREATMENT

1. San Bernardino Water Reclamation Plant

The City of San Bernardino Municipal Water Department owns and operates the San Bernardino Water Reclamation Plant (SBWRP). The SBWTP treats residential and industrial wastewater generated in:

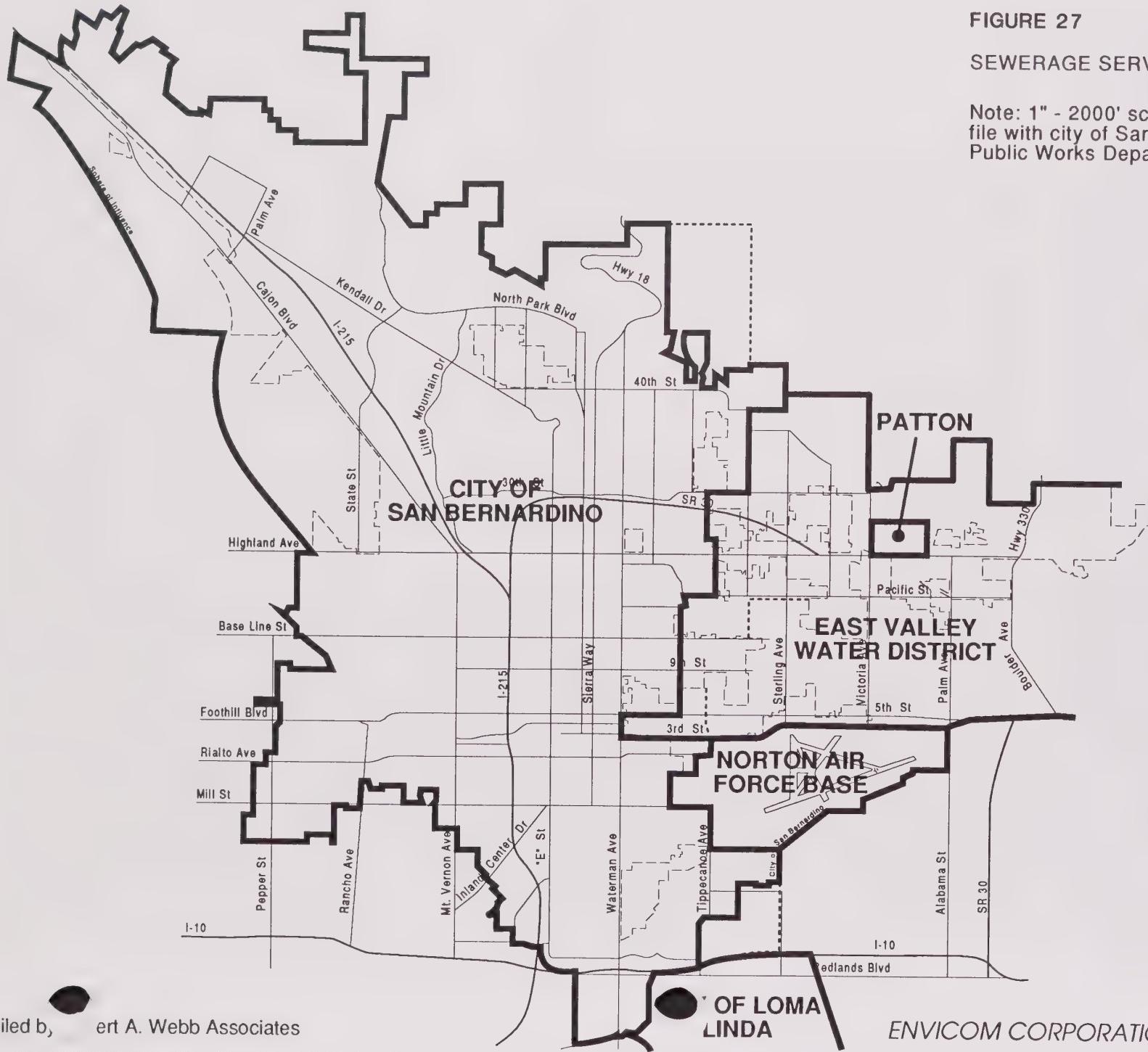
- The City of San Bernardino,
- City of Loma Linda,
- East Valley Water District,
- Patton State Hospital; and
- Domestic wastewater from Norton Air Force Base.

Service area boundaries are depicted on Figure 27.

FIGURE 27

SEWERAGE SERVICE AREA BOUNDARIES

Note: 1" - 2000' scale map on file with city of San Bernardino Public Works Department.



Present design capacity of the SBWRP is 28 million gallons per day (MGD) of primary and secondary treatment, and 3 MGD of tertiary treatment. The Municipal Water Department is planning an expansion of the SBWRP to add:

- 30 MGD of Primary Treatment Capacity,
- 15 MGD of Secondary Treatment Capacity,
- 10.5 MGD of Tertiary Treatment Capacity, and
- 15 MGD of Solids Handling Facilities.

Although the hydraulic capacity of the SBWRP will be increased to 58 MGD the discharge capacity of the plant will be limited by the secondary treatment capacity of 43 MGD (28 MGD existing secondary capacity plus 15 MGD expansion of secondary capacity).

2. Septic Tanks

The California Regional Water Quality Control Board - Santa Ana Region, permits the use of septic systems pursuant to City or County policies. The major septic tank areas are:

- Northwest of Little League Drive,
- Portions of the Verdemont area with parcels larger than one (1) acre,
- Palm Avenue and Industrial Parkway Area,
- Cajon Boulevard and June Street Area, and
- Northwest of the Interstate 215/30 Interchange.

The City presently has restrictions on the use of septic systems. The use of septic systems is not restricted in the County. The San Bernardino Municipal Water District has indicated that there have been no adverse impacts on water quality due to the use of septic tanks in the planning area.

3. Wastewater Collection Facilities

Wastewater collection facilities within the planning area are owned and operated by four different entities:

- City of San Bernardino (Public Works and Public Services Departments),
- East Valley Water District (EVWD),
- Norton Air Force Base, and
- the City of Loma Linda.

Wastewater collection is provided within the eastern portion of the planning area by the East Valley Water District (Figure 27), which operates and maintains their own wastewater collection system. Wastewater collected by the East Valley Water District is transported to the City's collection facilities prior to treatment at the San Bernardino Water Reclamation Plant (SBWRP).

The 1987 population of the EVWD was approximately 45,000 with a projected annual growth rate of 4.9%. The majority of land development within EVWD service is anticipated to occur in the East Highland Ranch Development area.

The City of Loma Linda operates and maintains a wastewater collection system within the southern portion of the planning area (Figure 27). Wastewater collected within the service area of the City of Loma Linda is ultimately conveyed to the City of San Bernardino's wastewater collection system prior to treatment at the SBWRP.

Norton Air Force Base has a contract with the City of San Bernardino for the transportation, treatment, and disposal of domestic wastewater generated at the base. Norton's existing contract with the City is due to expire in 1992.

The City Public Works Department is responsible for the design and construction of wastewater collection facilities in the City. Operation and maintenance of wastewater collection facilities is the responsibility of the Public Services Department.

B. WATER SUPPLY, TRANSMISSION, DISTRIBUTION, STORAGE, AND TREATMENT

Water service to the planning area is provided by:

- The City of San Bernardino Municipal Water Department,
- East Valley Water District,
- South San Bernardino County Water District,
- Muscoy Mutual Water Company,
- Norton Air Force Base, and
- Numerous Small Water Companies.

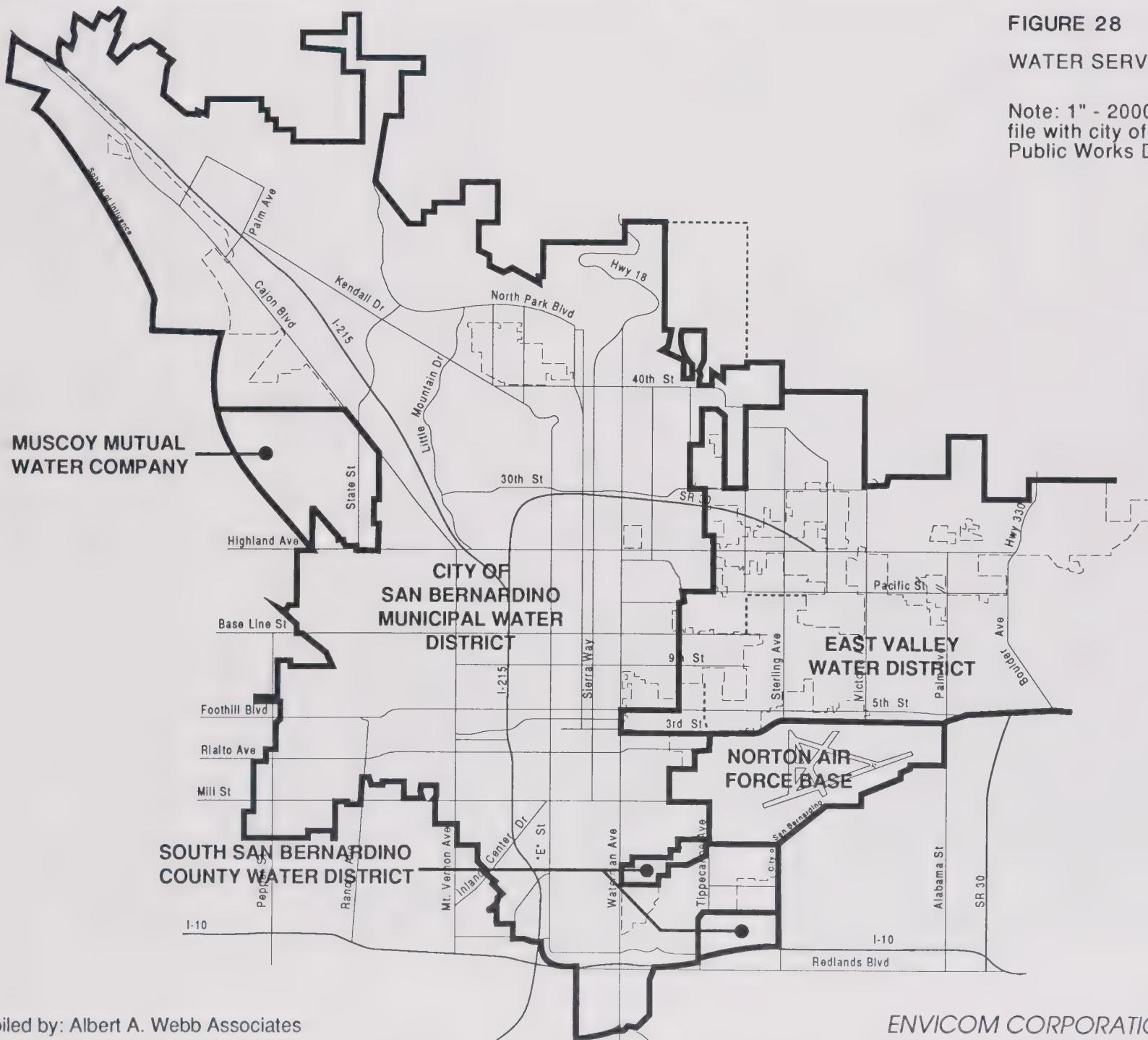
Figure 28 depicts their service area boundaries and a detailed water systems map is available for review in the City Public Works Department.

Since the City has no jurisdiction over water supply, transmission, distribution, and storage facilities administered by other entities this discussion addresses facilities owned and maintained by the City.

The San Bernardino Municipal Water Department (SBMWD) serves the majority of the City of San Bernardino, and portions of the County within the City's Sphere of Influence. The SBMWD service area encompasses over 43 square miles with 35,246 service connections. The SBMWD system consists of 440 miles of underground piping, 39 deep wells, 100 million gallons of storage facilities (tanks and reservoirs), and a total of 43 booster pumps located at 25 booster stations. The water system can deliver adequate quantities of water to meet present demand.

FIGURE 28
WATER SERVICE AREA BOUNDARIES

Note: 1" - 2000' scale map on file with city of San Bernardino Public Works Department.



Groundwater is the major source of water for the SBMWD. Groundwater supplies can be supplemented with filtered and treated stream water. The State Water Project (SWP) is another important source of water for the SBMWD. SWP supplies are percolated into the groundwater basin to maintain ground water levels.

Due to the variety of topography within the planning area the SBMWD water system is divided into 14 pressure zones. These zones were established based on the design criteria of maintaining 40 to 125 pounds per square inch (PSI) static pressure in any particular zone. SBMWD distribution and transmission pipelines are predominantly cast iron and ductile water mains from 6" to 30" in diameter.

The SBMWD is constructing 23 MGD of well head treatment equipment to remove low levels of trichloroethylene (TCE) and perchloroethylene (PCE) from groundwater. These improvements will return eleven (11) production wells to domestic service. The TCE/PCE problem is discussed in detail in Section 5.3 (pages 5-44 to 5-67) of the Technical Background Report (TBR).

The East Valley Water District (EVWD) provides water service to the eastern portion of the planning area (Figure 28). Water lines exist throughout the service area of EVWD, with emergency connections to the City's Municipal Water Department.

Water facilities operated and maintained by EVWD include:

- 13 production wells with a combined capacity of 25,200 gpm,
- 13 reservoirs with a combined storage capacity of 14.2 million gallons,
- 41 booster stations, and
- Approximately 150 miles of pipeline.

C. STORM DRAINS AND FLOOD CONTROL

Storm drains and flood control facilities within the planning area include: channels, storm drains, street waterways, natural drainage courses, dams, basins, and levees. A detailed map showing these facilities is available for review in the Public Works Department. Storm drain and flood control facilities in the planning area are administered by four different entities:

- City of San Bernardino (Public Works and Public Services Departments),
- San Bernardino County Flood Control District,
- Army Corps of Engineers, and
- Norton Air Force Base.

Systems administered by each of these agencies incorporate both natural and man-made elements.

The San Bernardino County Flood Control District divided the planning area into subareas for planning purposes pursuant to the District's Comprehensive Storm Drain Plans Nos. 3, 4, 6, and 7. Figure 29 depicts their location and a detailed discussion of these subareas is provided in Section 3.2.3 of the Technical Background Report (pages 3-48 to 3-51). The City uses the Flood Control District's Comprehensive Storm Drain Plans for the development of the City's storm drain system.

Current City policy requires all 10-year frequency storm waters, except for street flows at intersection points, be contained in the underground drain system. Storm flows in excess of the 10-year frequency storm flow, but less than or equal to the 25-year storm flow, will be carried in the curbed portion of the street. Storm flows associated with 100-year storms may be carried in the street right-of-way.

Flood control facilities to convey flows from debris basins in the foothills are sized for a 100-year storm. In areas where no road pattern exists, 100-year flows shall be carried entirely within the storm drain system. One hundred (100) year storm flows may also be conveyed via a combination of storm drains sized to convey a 25-year storm in the curbed part of the street with the balance of the flow conveyed in the street section. Design and construction of storm drain and flood control facilities are the responsibility of the City Public Works Department. The Public Services Department is responsible for the operation and maintenance of storm drain and flood control facilities.

D. SOLID WASTE COLLECTION AND DISPOSAL

Solid waste collection within the City and a portion of the unincorporated planning area is provided by the City's Department of Public Services. Solid waste collection in the remainder of the planning area is provided by private haulers through franchise agreements with the County.

Solid waste collected in the planning area is disposed of at landfills in Colton and Fontana owned and operated by the County of San Bernardino. When the Colton and Fontana Landfill eventually closes solid waste generated in the City will be transported to the San Timoteo Landfill also owned and operated by the County of San Bernardino. Regional planning for solid waste issues is conducted by the San Bernardino County Solid Waste Advisory Committee via the mechanism of the County Solid Waste Management Plan. The City has a representative serving on the Solid Waste Advisory Committee. Any future solid waste facilities such as transfer stations and/or landfills must be incorporated in the County Solid Waste Management Plan.

E. ELECTRICITY

Electrical service in the planning area is provided by the Southern California Edison Company (SCE). SCE owns, operates, and maintains both above ground and underground facilities in the planning area. Most of SCE's facilities are located in the street right-of-way. SCE will extend electrical service into unserved areas pursuant to SCE's current Rules and Rates.

FIGURE 29
STORM DRAIN SUB-AREAS

Note: 1" - 2000' scale map on file with city of San Bernardino Public Works Department.

00 Storm Drain Sub-Areas referred to in text.



F. NATURAL GAS

Natural gas service is provided in the planning area by the Southern California Gas Company. The gas company owns, operates and maintains underground gas lines in most of the public streets.

G. TELECOMMUNICATIONS

"Telecommunications" is defined as communicating audio, video, and data from one point to another. The City of San Bernardino Telecommunications Division is the entity responsible for the efficient transmission of data. Since telecommunications includes voice, data, and image transmission, this section includes policies relating to telephones (voice transmission), fibre optics (data), and cable television (data and image).

1. Telephone Service

Telephone service in the planning area is provided by General Telephone (GTE) and Pacific Bell. GTE serves the majority of the planning area with Pacific Bell serving the Highland, Rialto, and Colton areas (Figure 30).

Pacific Bell and General Telephone are utilities regulated by the California Public Utility Commission (PUC). Telephone service to unserved portions of the planning area will be extended pursuant to the phone companies' current Rules and Regulations subject to any tariffs on file with the California PUC.

One of the major responsibilities of the City's Telecommunication Division is the City telephone and telecommunications system. In addition to managing the City's telephone system, the Telecommunications Division maintains current information on services and special projects which could provide needed services to the residents of San Bernardino.

2. Cable Television

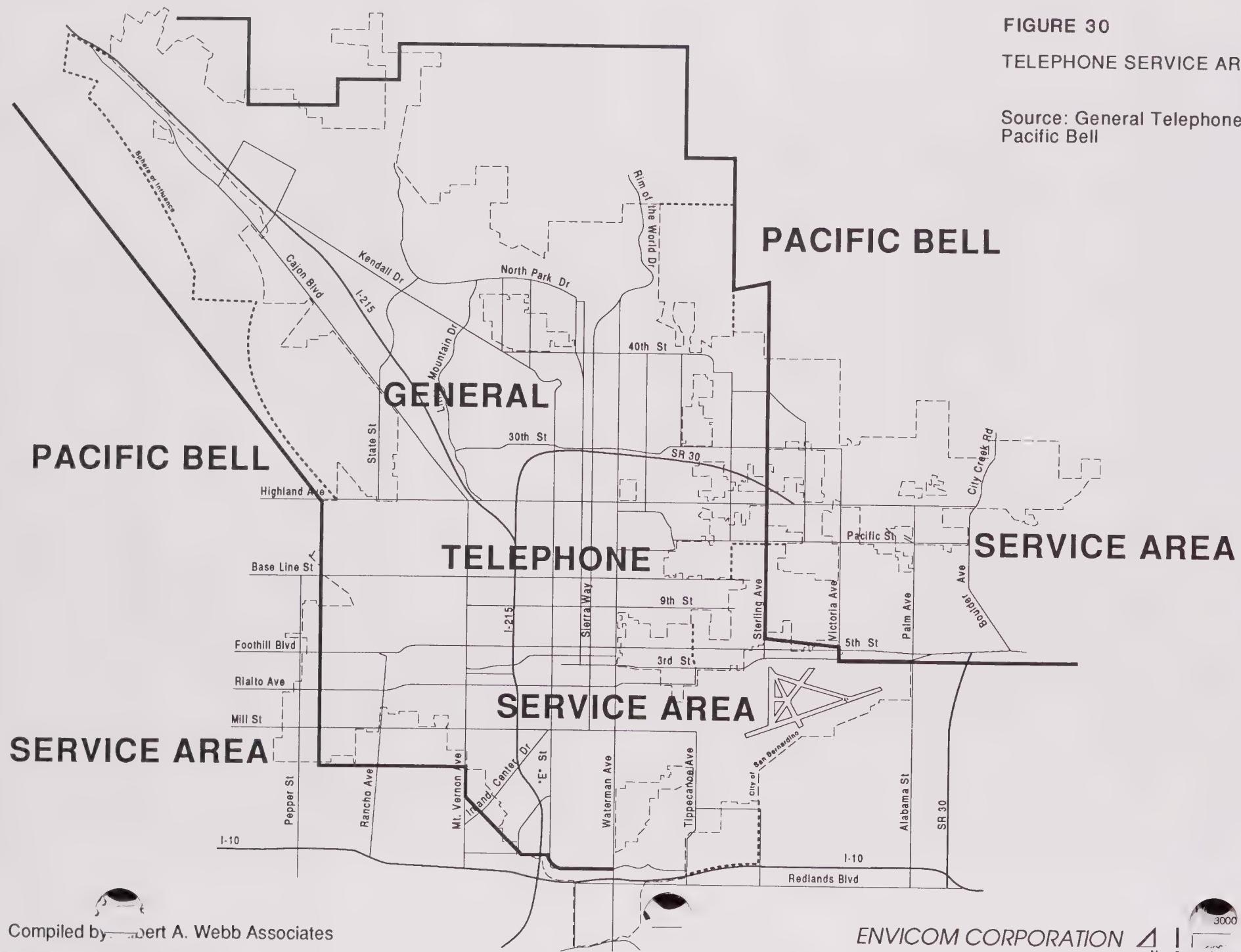
Cable Television is not legally classified as a "utility" and is not regulated by the California PUC. Consequently, regulation of all aspects of cable television is the responsibility of local jurisdictions. The City's Telecommunications Division is responsible for franchise supervision and negotiation, in addition to subscriber complaint resolution.

The City has granted four (4) non-exclusive franchise agreements to cable operators. Cable television is presently provided to the planning area by:

- a. Comcast Cablevision (approximately 32,000 subscribers),
- b. Chambers Cable (approximately 15,000 subscribers),

FIGURE 30
TELEPHONE SERVICE AREAS

Source: General Telephone and
Pacific Bell



- c. Southland Cable, doing business as Foothill Cable and Cablevision (approximately 500 subscribers, and
- d. Mountain Shadows Cable, (approximately 600 subscribers).

Comcast Cablevision, Chambers Cable, and Mountain Shadows have all been interlinked with the Telecommunications Division equipment for emergency broadcasts.

H. GEOTHERMAL RESOURCES

Approximately 90-100 geothermal wells and springs have been identified in the San Bernardino area. The geothermal wells and springs are concentrated in the Commerce Center, Central City, Tri-City areas, and Norton Air Force Base (as depicted on Figure 31).

The San Bernardino Municipal Water Department (SBMWD) is operating two (2) geothermal production wells which can pump 4,3000,000 gallons of hot water per day. The usable supply of geothermal water, however, is much greater than what is currently used.

The SBMWD uses geothermal resources to provide heat to a number of City, County, and State agencies, as well as private businesses. The sludge digesters at the San Bernardino Water Reclamation Plant (SBWRB), were the first facility to use geothermal energy and continue to use this resource. Use of geothermal heat is resulting in a savings of 30-50 percent for winter heating bills.

UTILITY ISSUES AND OPPORTUNITIES

Significant issues and opportunities affecting utilities within the planning area include:

- A. Septic tanks are permitted by the Regional Water Quality Control Board pursuant to applicable City and County policies. Presently the City and County do not have uniform policies regarding septic systems. Portions of the City's Sphere of Influence are being developed with septic systems approved by the County.
- B. Groundwater contamination has closed some of the Municipal Water Department's (SBMWD) Wells. The TCE/PCE treatment facilities currently being constructed by the SBMWD will put 11 wells back into domestic production. Return of these well to domestic production will ensure water production capacity to the year 2000.
- C. The existing storm drain and flood control facilities contain most of the storm flows within the system. Streets, however, are designed to convey storm flows to the storm drain system and may become impassable during storm events.
- D. The City and will continue its participation in the regional planning regarding solid waste issues via the County Solid Waste Advisory Committee.

FIGURE 31
GEOTHERMAL RESOURCES

 **Geothermal Resource Area**

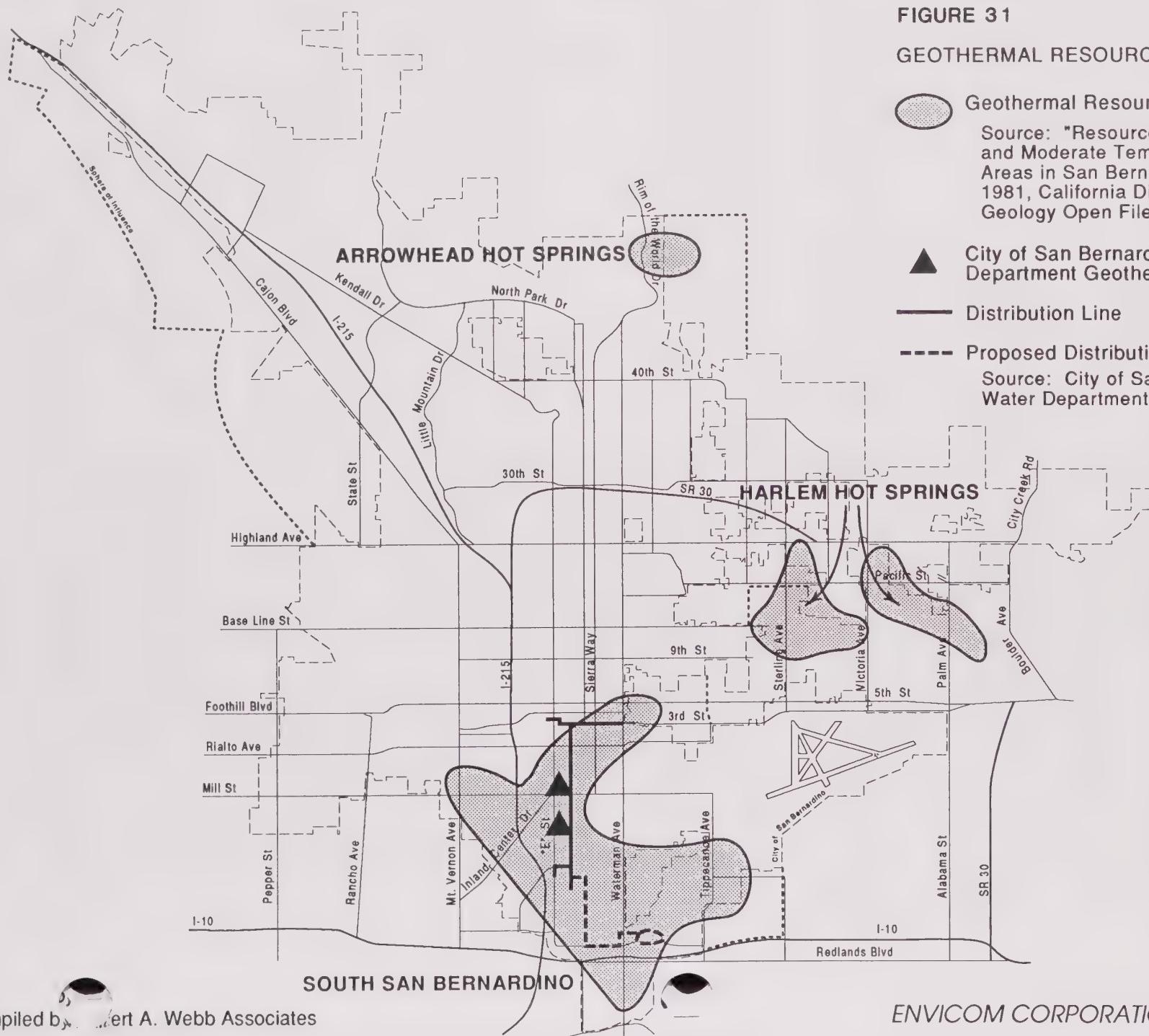
Source: "Resource Investigation of Low - and Moderate Temperature Geothermal Areas in San Bernardino, California," August 1981, California Division of Mines and Geology Open File Report 82-11 SAC.

 **City of San Bernardino Municipal Water Department Geothermal Well**

 **Distribution Line**

 **Proposed Distribution Line**

Source: City of San Bernardino Municipal Water Department



- E. Southern California Edison, the Southern California Gas Company, General Telephone Company, Pacific Telephone Company, Comcast Cablevision, Chambers Cable, Southland Cable, and Mountain Shadows have indicated an ability to provide service to new developments in the Planning Area.
- F. The expertise available to the City via the Telecommunications Division provides an opportunity for the ultimate development of state of the art telecommunication services in commercial centers, office industrial parks, and corporate centers.
- G. Use of geothermal resources results in substantial energy savings and generates revenue for the City.

OVERVIEW AND INTENT OF UTILITY POLICIES

The Goals, Objectives, Policies, and Programs Utilities in the City of San Bernardino are intended to maintain and/or improve the level of service provided to existing and future residents as the City of San Bernardino becomes the dominant regional serving capital of the Inland Empire pursuant to the City's Land Use Element. The goals, objectives, policies, and programs governing utilities in San Bernardino are also intended to ensure that utility services in the City keep pace with new development. New development shall not occur in the City unless either adequate infrastructure facilities (either existing or new) or mitigation is provided.

GOALS, OBJECTIVES AND POLICIES

The following presents the goals, objectives, and policies for utilities in the City of San Bernardino. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

ISSUE ONE: WASTEWATER COLLECTION AND TREATMENT

Goal

It shall be the goal of the City of San Bernardino to:

- 7A Establish and maintain adequate planning, construction, maintenance, and funding for wastewater collection and treatment facilities to support land uses; upgrading existing deficient systems, and expanding, where necessary, in the City's service area.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.1 Provide a system of wastewater collection and treatment facilities which will adequately convey and treat wastewater generated by existing and future development in the City's service area.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.1.1 Provide for the improvement of wastewater collection and treatment facilities where existing systems are deficient (I7.1, I7.2, I7.5).
- 7.1.2 Provide for the construction of upgraded and expanded wastewater collection and treatment improvements to support existing and new development (I7.2, I7.5).

- 7.1.3 Provide for the maintenance of existing wastewater collection and treatment facilities (I7.2, I7.5).
- 7.1.4 Require new development to connect to a master planned sanitary sewer system in accordance with the Department of Public Works' "Sewer Policy and Procedures". Where construction of master planned facilities is not feasible, and where the future construction of master planned facilities will not be jeopardized, the Mayor and Common Council may permit the construction of interim facilities sufficient to serve the present and short term future needs (I7.3, I7.4, I7.7).
- 7.1.5 Require all new development to secure sewer capacity rights for the City's Water Reclamation Plant prior to or at the time building permits are issued. If it is not feasible for a development to be served by the Water Reclamation Facility, the Mayor and Common Council may choose to allow an alternative method of wastewater disposal for a specific project, provided the appropriate permits have been obtained from the California Regional Water Quality Control Board-Santa Ana Region (I7.4, I7.5, I7.6).
- 7.1.6 Establish and maintain a record of the capacity and utilization of wastewater collection and treatment facilities serving the City of San Bernardino, monitoring impacts and demands of new development, and, as necessary, managing development to mitigate impacts and/or facilitate improvements (I7.6).
- 7.1.7 Impose limits on sewer connections, if necessary, to comply with available treatment capacity (I7.4, I7.6).
- 7.1.8 Work with the County of San Bernardino to minimize the use of septic tanks within the City's Sphere of Influence (I7.7, I7.8).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.2 Ensure that wastewater collection and treatment facilities are upgraded and installed in a timely manner to meet usage requirements and maximize cost efficiency.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.2.1 Require that wastewater collection and treatment facilities be installed and available for use prior to the issuance of a certificate of occupancy (I7.3, I7.4).

- 7.2.2 Continue to plan for and coordinate the implementation of infrastructure requirements to meet development demands (I7.2, I7.5).
- 7.2.3 Evaluate the City's Sewer Collection System Master Plan and the Board of Water Commissioner's Master Plan for Wastewater Treatment Facilities as necessary to accurately determine which collection and treatment facilities will be needed to serve present and future growth in the City (I7.2).
- 7.2.4 Implement a five-year capital improvement program to upgrade and maintain the City's wastewater collection system (I7.1).
- 7.2.5 Review development proposals for projects within the City's Sphere of Influence and encourage the County to disapprove any project which cannot be served with adequate public wastewater collection and treatment facilities (I7.7, I7.8).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.3 Ensure that the costs of infrastructure improvements are borne by those who benefit.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.3.1 Require that the cost for improvements to the existing wastewater collection and treatment facilities necessitated by a new development proposal be borne by the project proponent; either through the payment of fees, or by the actual construction of the improvements (I7.3).
- 7.3.2 Review sewer connection fees, capacity fees, and monthly service charges, as necessary, to ensure that adequate amounts of fees and charges are collected to fund the operation/maintenance of existing facilities and to construct new facilities (I7.10).
- 7.3.3 Monitor and periodically reassess rates for wastewater treatment services for jurisdictions outside the City of San Bernardino that have wastewater treated at the San Bernardino Water Reclamation Facility (i.e. Norton Air Force Base, East Valley Water District, Patton State Hospital, and City of Loma Linda) (I7.12).
- 7.3.4 Apply collected developers fees, sewer connection fees, capacity fees, and monthly service charges associated with wastewater collection and

treatment services toward the operation, maintenance, repair, and replacement of existing facilities, and for the construction of new facilities (I7.11, I7.12).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.4 Provide public funding support for expansion and upgrading of the wastewater collection and treatment system when these improvements will provide substantial public benefit to the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.4.1 Provide public funding of wastewater collection and treatment improvements which benefit the City (I7.13, I7.14).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.5 Ensure that all wastewater collection and treatment facilities are operated to maximize public safety.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.5.1 Provide for the monitoring of toxic or potentially toxic businesses to prevent contamination of water and wastewater (I7.15).
- 7.5.2 Require, when necessary, pre-treatment of wastewater from industrial sources prior to treatment at the Water Reclamation Facility (I7.15)

ISSUE TWO: WATER TRANSMISSION, DISTRIBUTION, STORAGE, AND TREATMENT

Goal

It shall be the goal of the City of San Bernardino to:

- 7B Establish and maintain adequate planning, construction, maintenance, and funding for water supply, transmission, distribution, storage, and treatment facilities to support land uses; upgrading existing deficient systems and expanding, where necessary, in the City.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.6 Provide a system of water supply, transmission, distribution, storage, and treatment facilities capable of meeting daily and peak demands, including fire flow requirements, to meet present and future water demands in a timely and cost effective manner.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.6.1 Provide water supply, transmission, distribution, storage, and treatment facilities (I7.17).
- 7.6.2 Provide for the construction of upgraded and expanded water supply, transmission, distribution, storage, and treatment facilities to support existing and new development (I7.2, I7.16, I7.19).
- 7.6.3 Provide for the maintenance and replacement of existing water supply, transmission, distribution, storage, and treatment facilities as necessary (I7.16, I7.17, I7.19).
- 7.6.4 Require adequate water supply, transmission, distribution, storage, and treatment facilities to be operational prior to the issuance of certificates of occupancy (I7.17).
- 7.6.5 Require all new development to be served from an approved domestic water supply (I7.17).
- 7.6.6 Monitor the demands on the water system and, as necessary, manage development to mitigate impacts and/or facilitate improvements (I7.6, I7.17).

- 7.6.7 Impose limits on new water hook-ups, if necessary, to comply with available domestic water supply (I7.6, I7.17).
- 7.6.8 Develop a program of public education to encourage water conservation practices (I7.18).
- 7.6.9 Designate, preserve, and acquire land for water supply, storage and transmission facilities (I7.41).
- 7.6.10 Request the Board of Water Commissioner to evaluate the Water System Master Plan, as necessary, to accurately determine which water facilities will be needed to serve present and future growth in the City (I7.2, I7.16).
- 7.6.11 Implement a continuous five-year capital improvement program to upgrade and maintain the City's water supply, transmission, distribution, storage, and treatment facilities (I7.16, I7.19).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.7 Ensure that the costs of improvements to the water supply, transmission, distribution, storage, and treatment system are borne by those who benefit.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.7.1 Require improvements to the existing water supply transmission, distribution, storage, and treatment facilities necessitated by a new development proposal be borne by the project proponent; either through the payment of fees, or by the actual construction of the improvements (I7.11, I7.17).
- 7.7.2 Review the development charge, acquisition of service charge, and monthly service charges on an annual basis to ensure that adequate amounts of fees and charges are collected to fund the operation/maintenance of existing facilities and to construct new facilities (I7.11).

- 7.7.3 Apply collected developers fees, acquisition of service fees, and monthly service charges associated with domestic water service toward the operation, maintenance, repair, and replacement of existing facilities and for the construction of new facilities (I7.11, I7.12).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.8 Provide public funding support for expansion and upgrading of the water supply, transmission, distribution, storage, and treatment system when these improvements will benefit to the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.8.1 Use public funding sources, when appropriate and available, to fund future water supply, transmission, distribution, storage, and treatment improvements which benefit the City. Funds used shall include, but not be limited to: revenue bonds, lease purchase agreements, State and Federal grants and loans (I7.13, I7.14).

ISSUE THREE: STORM DRAINS AND FLOOD CONTROL FACILITIES

Goal

It shall be the goal of the City of San Bernardino to:

- 7C Establish and maintain adequate planning, construction, maintenance, and funding for storm drain and flood control facilities to support land uses and preserve the public safety; upgrading existing deficient systems and expanding, where necessary, to protect development in the City.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.9 Ensure that adequate storm drain and flood control facilities are provided in a timely manner to protect life and property from flood hazards.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.9.1 Provide storm drain and flood control facilities where necessary (I7.6, I7.20, I7.22).
- 7.9.2 Provide for the construction of upgraded and expanded storm drain and flood control facilities to protect existing and new development (I7.20, I7.21).
- 7.9.3 Provide maintenance of existing storm drain and flood control facilities (I7.20, I7.23).
- 7.9.4 Require that adequate storm drain and flood control facilities be in place prior to the issuance of certificates of occupancy. Where construction of master planned facilities is not feasible and where future construction of master planned facilities will not be jeopardized, the Mayor and Common Council may permit the construction of interim facilities sufficient to protect present and short term future needs (I7.6, I7.20, I7.22).
- 7.9.5 Limit new development, if necessary, until adequate flood control facilities are available to protect the development, or until mitigation is provided (I7.6, I7.20, I7.22).
- 7.9.6 Designate, preserve and acquire land for necessary flood control facilities (I7.42).
- 7.9.7 Prohibit the construction of any structure intended for human occupancy within the 100-year flood plain as mapped by the Federal Emergency Management Agency (FEMA) unless a Special Flood Hazard permit is obtained pursuant to Section 15.72 of the Municipal Code (I7.22).
- 7.9.8 Review development proposals for projects within the City's Sphere of Influence and encourage the County to disapprove any project which cannot be protected with an adequate storm drain system (I7.8).
- 7.9.9 Implement flood control improvements in a manner which maintains the integrity of significant riparian and other environmental habitats in accordance with Biological Resources Policies 10.2.1, 10.3.1-10.3.4, 10.5.1, and 10.6.3 (I7.20).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.10 Ensure that the costs of improvements to the storm drain and flood control system are borne by those who benefit.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.10.1 Require improvements to existing storm drain and flood control facilities necessitated by a new development proposal be borne by the project proponent; either through the payment of fees, or by the actual construction of the improvements (I7.20, I7.23).
- 7.10.2 Allow the formation of benefit assessment districts and community facilities districts, where appropriate, in which those who benefit from specific local storm drain and flood control improvements pay a pro rata share of the costs (I7.9).
- 7.10.3 Collect adequate amounts of fees and charges to fund the operation/maintenance of existing facilities and to construct new facilities (I7.23).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.11 Ensure public funding for expansion and upgrading of the storm drain and flood control system when these improvements will benefit the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.11.1 Provide public funding of storm drain and flood control improvements which benefit the City (I7.9, I7.13, I7.14).
- 7.11.2 Apply collected drainage fees, toward the construction of new facilities (I7.10, I7.23).

ISSUE FOUR: SOLID WASTE

Goal

It shall be the goal of the City of San Bernardino to:

- 7D Establish and maintain adequate planning, maintenance, and funding for solid waste collection, transfer and/or disposal facilities to serve existing and future land uses and to preserve the public safety.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.12 Ensure an adequate and orderly system for the collection and disposal of solid waste to meet the demands of new and existing developments in the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.12.1 Provide adequate solid waste collection for commercial, industrial, and residential developments (I7.29).
- 7.12.2 Provide for the installation and maintenance of trash receptacles along incorporated City streets in commercial areas and along major arterials (I7.24, I7.4).
- 7.12.3 Provide regular street sweeping (I7.25, I7.29).
- 7.12.4 Designate, preserve, and acquire land for solid waste collection, transfer, recycling, and/or disposal facilities (I7.27, I7.28, I7.42).
- 7.12.5 Explore a suitable location, within the current sphere of influence, for the location of a solid waste transfer station, recycling center and/or landfill site (I7.26, I7.27, I7.28).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.13 Recycle solid waste to reduce the amount of solid waste which must be disposed of in area landfills, to conserve energy resources, and be consistent with the County Solid Waste Management Plan and State law.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.13.1 Participate in the development of recycling programs on a regional basis through the County Solid Waste Advisory Committee, the County Solid Waste Management Plan, and appropriate State programs. Participate in the development of local recycling programs. (I7.27, I7.28, I7.30).
- 7.13.2 Develop and implement a program of public education regarding the benefits of recycling (I7.31).

ISSUE FIVE: ELECTRICITY

Goal

It shall be the goal of the City of San Bernardino to:

- 7E Provide an adequate, safe, and orderly supply of electrical energy to support existing and future land uses within the City.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.14 Work with the Southern California Edison Company to ensure that adequate electrical facilities are available to meet the demands of existing and new developments.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.14.1 Require that approval of new development be contingent upon the ability to be served with adequate electrical facilities (I7.32).
- 7.14.2 Underground utilities, including on-site electrical utilities and connections to distribution facilities, unless such undergrounding is infeasible due to significant environmental or other constraints (I7.33).

Objective

It shall be the objective of the City of San Bernardino to:

- 7.15 Expand and upgrade the City's street lighting system.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.15.1 Provide adequate illumination of all streets, alleys (under special conditions), and public areas; upgrading areas which are deficient and maintaining lighting fixtures in good working order (I7.41).
- 7.15.2 Require improvements to the existing street light system and/or new street light systems necessitated by a new development proposal, be funded by that development (I7.33, I7.41).

ISSUE SIX: NATURAL GAS

Goal

It shall be the goal of the City of San Bernardino to:

- 7F Provide an adequate supply of natural gas to support existing and future land uses within the City.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.16 Work with the Southern California Gas Company to ensure that adequate natural gas facilities are available to meet the demands of existing and new developments.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.16.1 Require that all new development served by natural gas install on-site pipeline connections to distribution facilities underground, unless such undergrounding is infeasible due to significant environmental or other constraints (I7.33, I7.34).

ISSUE SEVEN: TELECOMMUNICATIONS

Goal

It shall be the goal of the City of San Bernardino to:

- 7G Provide an adequate telecommunications system to support existing and future land uses within the City.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.17 Work with Pacific Telephone and General Telephone to ensure that adequate telecommunications facilities are available to meet the needs of existing and new developments.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.17.1 Provide for the continued development and expansion of telecommunications systems including cable and, as feasible, fibre optics, for entertainment, education, culture, information access, two-way communication between government and residents and businesses, and other similar purposes (I7.35, I7.36).
- 7.17.2 Require that all new development install on-site telecommunication connections to distribution facilities underground, unless such undergrounding is infeasible due to significant environmental or other constraints (I7.33).

ISSUE EIGHT: GEOTHERMAL RESOURCES

Goal

It shall be the goal of the City of San Bernardino to:

- 7H Use the City's available geothermal resources, to the fullest extent feasible, as an alternative to natural gas and electricity.

Objective

It shall be the objective of the City of San Bernardino to:

- 7.18 Promote the use of geothermal resources particularly in the South San Bernardino Area.

Policies

It shall be the policy of the City of San Bernardino to:

- 7.18.1 Provide for the continued development and expansion of geothermal energy distribution lines in the Commerce Center, Central City, Tri-City areas, and Norton Air Force Base (I7.39, I7.40).
- 7.18.2 Provide public funding to expand the existing geothermal production and distribution system (I7.13, I7.14, I7.38).
- 7.18.3 Implement a public education program regarding the City's available geothermal resources (I7.39, I7.40).

IMPLEMENTATION PROGRAMS

The following implementation programs correspond to utility policies for the City of San Bernardino. Each program is preceded by a capital "I" and a number which is referenced by the pertinent policy which it implements in the preceding section (noted in parentheses at the close of each policy).

- I7.1 The Mayor and Common Council shall allocate adequate funds to purchase equipment and allocate City staff (or retain a qualified consultant) to undertake a comprehensive inventory of the existing wastewater collection facilities in the City. This physical inspection and inventory of wastewater collection facilities shall be initiated as soon as possible and be completed no later than five years after adoption of the General Plan. The inventory shall consist of a visual inspection of the wastewater collection facilities and a determination of the capacity of wastewater which is being conveyed for treatment in major trunk lines.
- The City Public Works Department will use the information generated by the physical inventory to prepare and adopt a five year program for pipeline replacement for consideration by the Mayor and Common Council. The Mayor and Common Council will adopt an adequate Capital Improvement Program which will include replacement and repair of existing wastewater collection facilities where necessary.
- I7.2 The Mayor and Common Council and Board of Water Commissioners shall allocate funds to be used by the City Public Works Department and Municipal Water Department respectively to update their respective Master Plans as needed to reflect significant changes in the planned land use within the City and to include areas annexed to the City which require City water and/or sewer services .
- I7.3 Construction of the facilities necessary for the connection to a public sewer shall be a condition of approval for all discretionary projects in the City. All sewers within the City shall be designed and constructed to the standards set forth in the "Sewer Policies and Procedures" established by the Department of Public Works. Septic systems may be permitted in accordance with the provisions in the Municipal Code.

- I7.4 Availability of adequate treatment capacity at the San Bernardino Water Reclamation Plant shall be a condition of approval for all discretionary projects within the City. If adequate plant capacity is not available the project shall not be approved until adequate treatment plant capacity is available or an alternative method for wastewater disposal and treatment is approved by the Mayor and Common Council, the Board of Water Commissioner's and the California Regional Water Quality Control Board (RWQCB) Santa Ana Region .
- I7.5 The Board of Water Commissioners will continue to upgrade the San Bernardino Water Reclamation Plant in accordance with the Wastewater Treatment Plant Master Plan and the requirements of the California Regional Water Quality Control Board Santa Ana Region.
- I7.6 Collect and maintain data on the location, capability, level of utilization and conditions of:
- Wastewater collection and treatment facilities,
 - Water supply, transmission, distribution, storage, and treatment facilities,
 - Storm drain and flood control facilities,
 - Solid waste facilities, and
 - Other public utilities serving the City of San Bernardino.
- The respective agencies and departments shall advise the City Planning Department as new development applications are reviewed by the City regarding the availability of service.
- In the event that sufficient capacity is not available to serve a proposed project, the City shall not approve the project until additional capacity or adequate mitigation is provided.
- I7.7 Attempt to negotiate an agreement with the County of San Bernardino so that no development projects are approved in the City's Sphere of Influence which cannot be served with adequate wastewater collection and treatment facilities.
- I7.8 The Planning Department shall review development proposals for projects within the City's Sphere of Influence and recommend denial of any project that cannot be provided adequate wastewater collection and treatment facilities.

- I7.9 The Mayor and Common Council may allow the formation of benefit assessment districts for the maintenance and construction of storm drain, and street lighting systems.
- I7.10 The Mayor and Common Council shall review and amend ordinances and resolutions setting storm drain fees, as needed, to provide the necessary funds for the operation and maintenance of the storm drain facilities.
- I7.11 The Board of Water Commissioners shall review resolutions and rules and regulations setting water and sewer fees, as needed, to provide the necessary funds for the operation and maintenance of water facilities and wastewater treatment facilities.
- I7.12 The Board of Water Commissioners shall review the rates charged for jurisdictions outside of the City having wastewater treated at the Water Reclamation Plant adjusting rates, as allowed, to collect adequate funds for the treatment of their wastewater.
- I7.13 Undertake municipal bonding programs to finance public improvements if necessary.
- I7.14 Solicit funds for the improvement and maintenance of the City's public infrastructure system from State and Federal agencies (when available).
- I7.15 Continue to enforce the Municipal Water Department's industrial pre-treatment ordinance which requires monitoring and pre-treatment of industrial wastes prior to discharge in a public sewer.
- I7.16 The Board of Water Commissioners shall allocate adequate funds to purchase equipment and allocate City staff (or retain a qualified consultant) to update the comprehensive inventory of the existing water distribution facilities in the City. This update shall be initiated as soon as possible, and be completed no later than 12 months after adoption of the General Plan.
- The Board of Water Commissioners will use the information generated by the physical inventory to prepare and adopt a five year program for pipeline replacement .
- I7.17 Availability of an adequate potable water supply shall be a condition of approval for all discretionary projects within the City. If an adequate supply of potable water is not available, the project shall not be approved until an adequate water supply is available. Domestic water supplies shall meet State and Federal water quality standards.

- I7.18 The Municipal Water Department will administer a program of public education regarding the benefits of water conservation. This program may be developed entirely at the local level or by adopting existing regional or national programs (i.e. Metropolitan Water District, Army Corps of Engineers).
- I7.19 The Board of Water Commissioners shall continue its program of water pipeline replacement and include repair and replacement of existing water facilities in the water rate charges.
- I7.20 The San Bernardino County Flood Control District and the City Public Works Department shall review development plans to determine what storm drain facilities are needed to protect the project. Adequate flood protection shall be a condition of project approval. Storm drain facilities shall be designed using criteria contained in the "Storm Drain Design Policy" of the City Department of Public Works. Funding for storm drain facilities shall be provided through the plan check, permit, and inspection fees, the storm drain construction fund, and special assessments.
- I7.21 The Public Works Department shall prepare a five year capital improvement program for adoption by the Mayor and Common Council. The Mayor and Common Council shall allocate funds for use by the Public Works and Public Services Department to make the necessary improvements.
- I7.22 Structures intended for human occupancy located in the 100 year flood plain shall be reviewed by the Public Works Department and County Flood Control District. Recommendations by the County Flood Control District will be considered by the City prior to project approval.
- I7.23 The Mayor and Common Council shall periodically review fees, to ensure that they are adequate for the purpose collected.
- I7.24 The City shall identify appropriate funding sources for placing and maintaining trash receptacles in the City.
- I7.25 The Public Services Department shall use Refuse Enterprise Funds to provide regular street sweeping service in the City.
- I7.26 Analyze the feasibility of the City owning and operating its own transfer station and/or landfill.

- I7.27 Participate in the regional efforts of the County to undertake an analysis of landfill capacity and needs, and initiate long range planning for the provision of adequate landfill capacity to serve the future population of San Bernardino County. At least one representative of the City of San Bernardino shall participate in the regional planning efforts.
- I7.28 The City of San Bernardino shall encourage the recycling of solid waste including but not limited to: paper, aluminum cans, cardboard, and glass. Encouragements shall include : public recognition for recycling efforts, use of City facilities for short term recycling projects (i.e. paper and can drives), and dissemination of information regarding area recycling projects.
- The Mayor and Common Council may allow businesses to establish their own recycling program in compliance with all appropriate State and local laws after obtaining all appropriate permits and/or licenses
- I7.29 Place all collected solid waste users fees in the Refuse Enterprise Fund. This fund shall be used for the operation, maintenance, repair and replacement of existing solid waste collection transfer, recycling, street sweeping, equipment and facilities, and/or landfill disposal equipment and facilities, and for the acquisition of new equipment and facilities.
- I7.30 Analyze the ability of the City to undertake a leadership role in the establishment of a model recycling program. This study should address:
- The success of the presently "white" and computer paper recycling project underway at governmental City offices, and
 - The development and administration of a public education program regarding recycling.
- I7.31 The City Public Services Department shall administer an education program regarding the benefits of recycling. This program may be done entirely at the local level or by participating in regional efforts in conjunction with the County Solid Waste Advisory Committee.
- I7.32 Availability of an adequate electrical supply to serve the project shall be a condition of approval for all projects within the City. If electrical service is not available the project shall not be approved until adequate mitigation is provided.
- I7.33 New development within the City shall pay for the costs of undergrounding new utility facilities needed to serve that development. The City shall use available applicable funds to underground existing above-ground utility facilities. The City shall develop a priority list to

- determine which facilities should be underground to best serve the public benefit.
- I7.34 Although the availability of adequate natural gas supplied via underground facilities shall not be a condition of approval for projects within the City, new developments should be provided with natural gas service via a public utility company. The use of natural gas from private or public sources stored in above-ground tanks shall be discouraged.
- I7.35 Encourage cable television operators to expand their services as the City expands to offer the residents and businesses of San Bernardino access to high quality television services and information about significant City activities and significant City issues.
- I7.36 Cooperate with and encourage public utilities to provide a fibre optics network in the City which is linked to regional systems.
- I7.37 Extend the system of geothermal facilities in the Commerce Center, Central City, Tri-City areas, and Norton Air Force Base to accommodate future commercial and governmental uses.
- I7.38 The Board of Water Commissioners may provide State and Federal funds, when available, as financial inducements to new and existing buildings which use geothermal energy.
- I7.39 Administer a program for the purpose of educating potential developers in the Commerce Center, Central City, Tri-City areas, and Norton Air Force Base of the cost and energy saving benefits associated with the use of geothermal energy. This program could be conducted in conjunction with the Chamber of Commerce and City Redevelopment Agency as a benefit of locating in San Bernardino.
- I7.40 Ensure that all new commercial and industrial developments exceeding a building area of 1,500 square feet receive a Geothermal Feasibility Review by the Municipal Water Department if they are located within the following area: north of I-10, east of I-215, south of 7th Street, and west of Tippecanoe Avenue.
- I7.41 Form street lighting districts, as necessary, which those who benefit from installation and operation of street lights pay their fair share of the operation and maintenance costs.
- I7.42 During the process of updating master plans administered by, the Municipal Water Department, Public Works Department, Public Services Department, and/or San Bernardino County Flood Control the respective entities shall identify the lands needed for future utility facilities. The

respective departments, in coordination with the City Planning Department, shall have the property designated for utility use, if appropriate, and commence acquisition of any necessary fee titles or easements, as required.

8.0 PUBLIC FACILITIES AND SERVICES

A. POLICE

INTRODUCTION AND STATUTORY REQUIREMENTS

California State law does not mandate the preparation of an element prescribing policy for police and fire. It does, however, stipulate that their emergency preparedness programs be addressed by the mandated Safety Element. This, as an optional element, defines general policies and programs for the Police Department and the interface of the City with adjacent jurisdictions and the County Sheriff's Department.

BACKGROUND DATA AND ANALYSES

Police services in the planning area are provided by the City Police Department within the City limits and the County Sheriff in the unincorporated area. The planning area is served by a main police station and six community service offices that serve six designated geographical patrol districts, depicted on Figure 32. The City operates a centralized computer-aided dispatch located in City Hall and uses the County jail and booking facilities.

The City Police Department operates under a mutual aid agreement with police agencies in the surrounding cities. This allows use of up to fifty percent of adjacent agency resources upon request and for automatic response within zones of mutual aid.

The unincorporated portions of the planning area are provided police services from the San Bernardino County Sheriff's Department. The County Sheriff operates from an office located at 655 East 3rd Street in the City of San Bernardino. The sheriff provides patrol and emergency response for the unincorporated areas only. The Sheriff's Department and the City Police Department provide mutual backup services upon request within both the City and unincorporated areas.

The California Highway Patrol in San Bernardino provides traffic patrol on State Highways and also on roads within the unincorporated areas of the County. The Highway Patrol also provides emergency response backup to the City Police and the County Sheriff upon request. The Highway Patrol office is located within the corporate limits of the City.

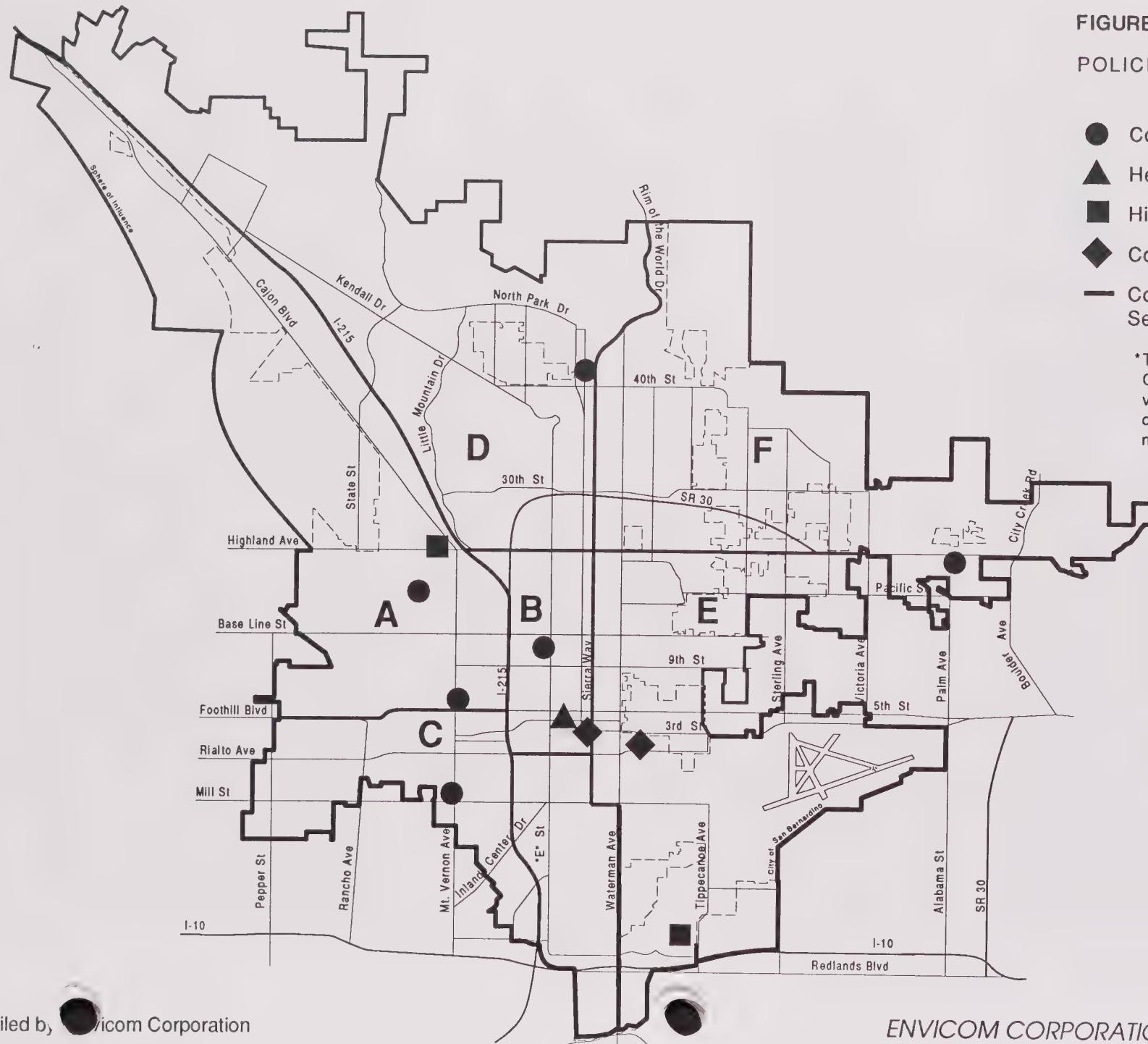
Both Patrol and the Community Service Offices are administered from the Community Services Division. Although the Community Service Offices are primarily staffed by non-sworn personnel, known as Police Assistants, they are often occupied by police officers who use them for minor administrative duties.

The Community Services Support Division includes such units as Intelligence, Vice/Narcotics, Multiple Enforcement Team (MET), and Traffic. The MET is equivalent

FIGURE 32
POLICE SERVICES

- Community Offices*
- ▲ Headquarters
- Highway Patrol
- ◆ County Sheriff
- Community Oriented Police Service Districts

*The number and locations of Community Offices may be varied in the future to meet changes in population and the needs of the community.



to a Strategic Weapons and Tactics (SWAT) team. They respond to hostage and barricaded person calls, offer specialized investigative and patrol services when needed, and assist the Vice/Narcotics units. The Traffic Bureau consists of motorcycle officers whose main duties are enforcement of traffic laws and accident investigations.

Within the Investigative Services Division are a number of detectives whose primary duty is to follow-up the initial reports to solve crimes. Included in this division are the Crime Analysis Unit, the Identification Unit, and the Property Unit. The Staff Services Division includes Internal Affairs, Payroll, Budget, Personnel and Training, Reserves/Explorers, Building/Equipment Maintenance, Dispatch, Records, and Community Programs.

Two programs being developed are an improved alarm ordinance and design guidelines for new construction which incorporates environmental design concepts, including defensible space, physical security, and circulation. These concepts envelope the notion that a properly designed City can provide a built-in deterrent to criminal activity.

The City currently has one federally funded community development block grant in effect. The grant provides home security devices such as dead bolt locks and door viewers. Repairs to faulty doors and windows are also included in the program.

Crime and Calls for Service

The Police Department calls for service rose dramatically from 1982 to 1987. Calls for service include officer initiated activities, citizen requests for service, and routine police activities. A comparison of the number of responses for the past six years is provided below:

<u>Year</u>	<u>Calls for Service Police Dispatch</u>
1982	99,850
1983	118,500
1984	120,000
1985	151,150
1986	168,900
1987	201,835 (Estimate)

ISSUES

1. As population continues to grow, of concern are the means to expand police facilities and services, reduce the rates of crime, and enhance the perception of safety in all areas of the City.

2. The study of the Meadowbrook apartments showed that the physical environment of some high density developed areas of the City may contribute to high crime rates. Defensible space concepts for new development in the City could be considered to mitigate these problems.
3. New development and additional population will require additional police services. The relationship between the location and rate of growth and the impact on existing facilities should be considered to ensure adequate levels of service.

GOALS, OBJECTIVES AND POLICIES

The following presents the goals, objectives and policies for Police Services in the City of San Bernardino. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 8A Protect the residents of San Bernardino from criminal activity and reduce the incidence of crime in all parts of the City.

Objective

It shall be the objective of the City of San Bernardino to:

- 8.1 The City shall ensure that the Police Department provides adequate protection to the residents of San Bernardino from criminal activity, and crime prevention measures that reduce the incidence of crime.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.1.1 The City shall maintain a complement of personnel in the Police Department that is capable of providing a timely response to reported criminal activity and can equitably protect all citizens and property in the City (I8.1, I8.3).
- 8.1.2 Assure that adequate police services to the community are maintained through a periodic conditions and needs assessment of department services, facilities and personnel (I8.1, I8.2, I8.3, I8.4).
- 8.1.3 Coordinate inter-agency cooperation agreements with County and adjacent jurisdictions that will provide emergency assistance and cooperation on inter-jurisdictional cases (I8.5).
- 8.1.4 Continue to support and encourage community-based crime prevention efforts through regular interaction and coordination with existing neighborhood watch programs, assistance in the formation of new neighborhood watch groups, and regular communication with neighborhood and civic organizations (I8.6).

8.1.6 The City shall assist the San Bernardino City Unified School District and other educational agencies to create a program of early intervention for students that will provide instruction, recreation, and training programs outside of the classroom (I8.7).

Goal

It shall be the goal of the City of San Bernardino to:

8B Enhance the safety of the residents through building and environmental design.

Objective

It shall be the objective of the City of San Bernardino to:

8.2 Increase the ability of the residents and the Police Department to minimize crime and provide security for residential, commercial, industrial and public buildings, sites, and open space.

Policies

It shall be the policy of the City of San Bernardino to:

8.2.1 Ensure that landscaping (i.e., trees and shrubbery) around buildings does not obstruct views required to provide security surveillance (I8.8).

8.2.2 Require adequate lighting around residential, commercial and industrial buildings in order to facilitate security surveillance (I8.8).

8.2.3 Require that recreational facilities in multiple-family residential complexes are designed to provide visibility and security (I8.8).

8.2.4 Require the provision of security measures and devices that are designed to increase visibility and security in the design of building siting, interior and exterior design, and hardware (I8.8).

IMPLEMENTATION

- I8.1 The City shall maintain a police force capable of providing adequate protection and criminal prevention services to the citizens of San Bernardino and their property.
- I8.2 The City shall conduct an annual assessment of Police Department services that shall evaluate, first, infrastructure conditions in all existing facilities and equipment, second, personnel staffing conditions, and third, facilities, equipment and personnel needs for the coming fiscal year, based on anticipated population growth, level of service, and the crime rate.
- I8.4 Establish a program that will monitor crime prevention programs and identify funding sources for law enforcement on the Federal, state, and local level.
- I8.5 The City shall continue and periodically review its cooperation agreements with the County of San Bernardino and adjacent jurisdictions for mutual assistance.
- I8.6 The City, through the Police Department, shall enact an ongoing Outreach Program to existing Neighborhood Watch groups to provide support and assistance in self-help programs, and identify residential areas without neighborhood watch programs and assist them to initiate and continue watch programs. A structure for a similar program for commercial areas in the City shall be established that may be effectuated by the Chamber of Commerce and other similar organizations.
- I8.7 The City, with the assistance of the Police Department, shall assist the San Bernardino City Unified School District and other educational agencies in establishing an early intervention program that will include, but not be limited to, sports, arts and crafts activities, job training and counseling for high school, junior high and elementary students who are having identified academic and social problems.
- I8.8 The City shall enact amendments to the Building Code and incorporate in the City's design review process for development projects requirements for defensible space design in all new projects that ensure maximum visibility and security for entrances, pathways and corridors, open space (both private and public), and parking lots/structures.
- I8.9 The City shall maintain an adequate complement of building code compliance inspectors who will work with the police department in order to eradicate building conditions which enhance criminal activity.

B. FIRE

INTRODUCTION AND STATUTORY REQUIREMENTS

California State law does not mandate the preparation of an element prescribing policy for fire. It does, however, stipulate that their emergency preparedness programs be addressed by the mandated Safety Element. This, as an optional element, defines general policies and programs for the Fire Department and the interface of the City with adjacent jurisdictions and with the County Fire Department.

BACKGROUND DATA AND ANALYSES

1. Operations

Fire prevention, fire protection, and emergency medical service (EMS) in the planning area within the San Bernardino City limits are provided by the San Bernardino City Fire Department.

This coverage is provided from the physical locations listed below and depicted on Figure 33.

<u>Station</u>	<u>Address</u>
1	200 East 3rd Street
2	1201 West 9th Street
3	2121 Medical Center Drive
4	2641 North "E" Street
5	1640 Kendall Drive
6	1920 Del Rosa Drive
7	282 West 40th Street
8	3398 East Highland Avenue
9	202 Meridian Avenue
10	502 South Arrowhead Avenue
11	450 East Vanderbilt Way

The types and numbers of emergency responses of the Fire Department for 1984 through 1986 are as follows:

Fire Department Emergency Responses

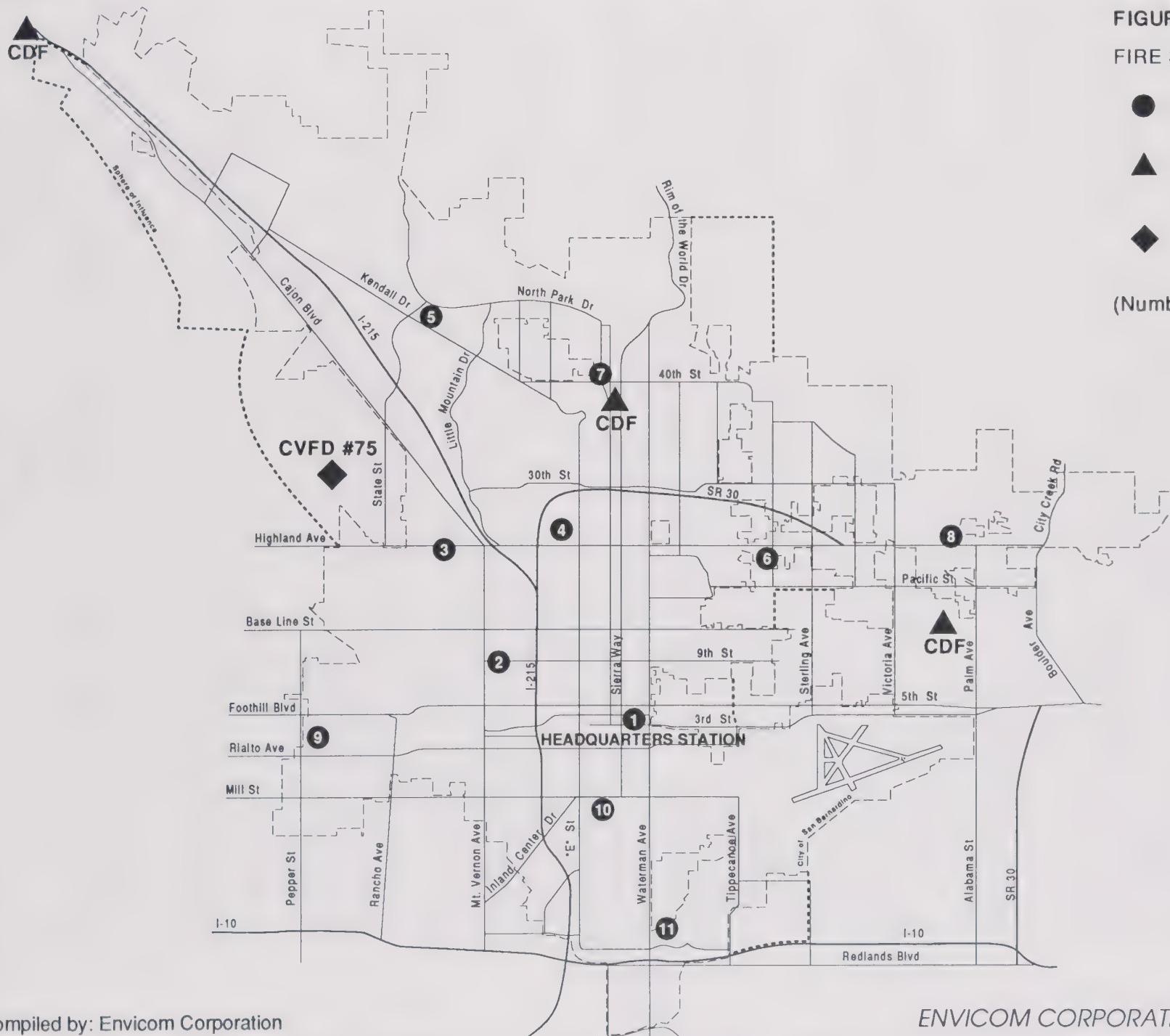
	<u>1984</u>	<u>1985</u>	<u>1986</u>
Fire Calls	2,879	2,809	2,765
Medical Aid Calls	7,801	8,403	9,613
Totals	10,780	11,212	12,378

FIGURE 33

FIRE SERVICES

- City Fire Stations
- ▲ California Department of Forestry (CDF)
- ◆ Central Valley Fire District (CVFD) # 75

(Numbers are referred to in text)



The City Fire Department has formal mutual joint response agreements with the cities of Loma Linda, Colton, Rialto, and Central Valley Fire District (Station #75, in Muscoy), U.S. Forest Service, and Norton Air Force Base.

Joint response is an agreement between two neighboring departments to respond into a predesignated area on any multi-unit fire. The concept is to have a faster response of the second-in unit. It is not designed to supplement an agency's total protection capabilities since it is a reciprocal agreement and the number of responses by each agency are intended to balance. The joint response areas are reviewed by both fire chiefs annually and adjusted if necessary to ensure reciprocity.

The boundaries that indicate the extent to which the bordering agency come into the City are shown on Figure 34. The boundaries that indicate the extent to which the City responds into the bordering agency are not shown.

In addition to local joint response, all fire departments in the State are signatory to a master mutual aid agreement. This agreement was established to provide assistance for major incidents. The agreement states in part that "political subdivisions will reasonably exhaust local resources before calling for outside assistance."

The Insurance Service Office (ISO) Grading Schedule is a means of classifying cities with reference to their fire defenses and physical conditions. The insurance classification developed under this schedule is only one of several elements used in development of fire insurance rates. The ISO rating for the City is Class 3. The ISO rating is on a scale from 1-10 with Class 1 being the best. In most instances, the fire insurance costs are the same for single-family residential structures in the 2-4 rating. Commercial, industrial, and multiple residential insurance costs can be substantially affected by ISO ratings.

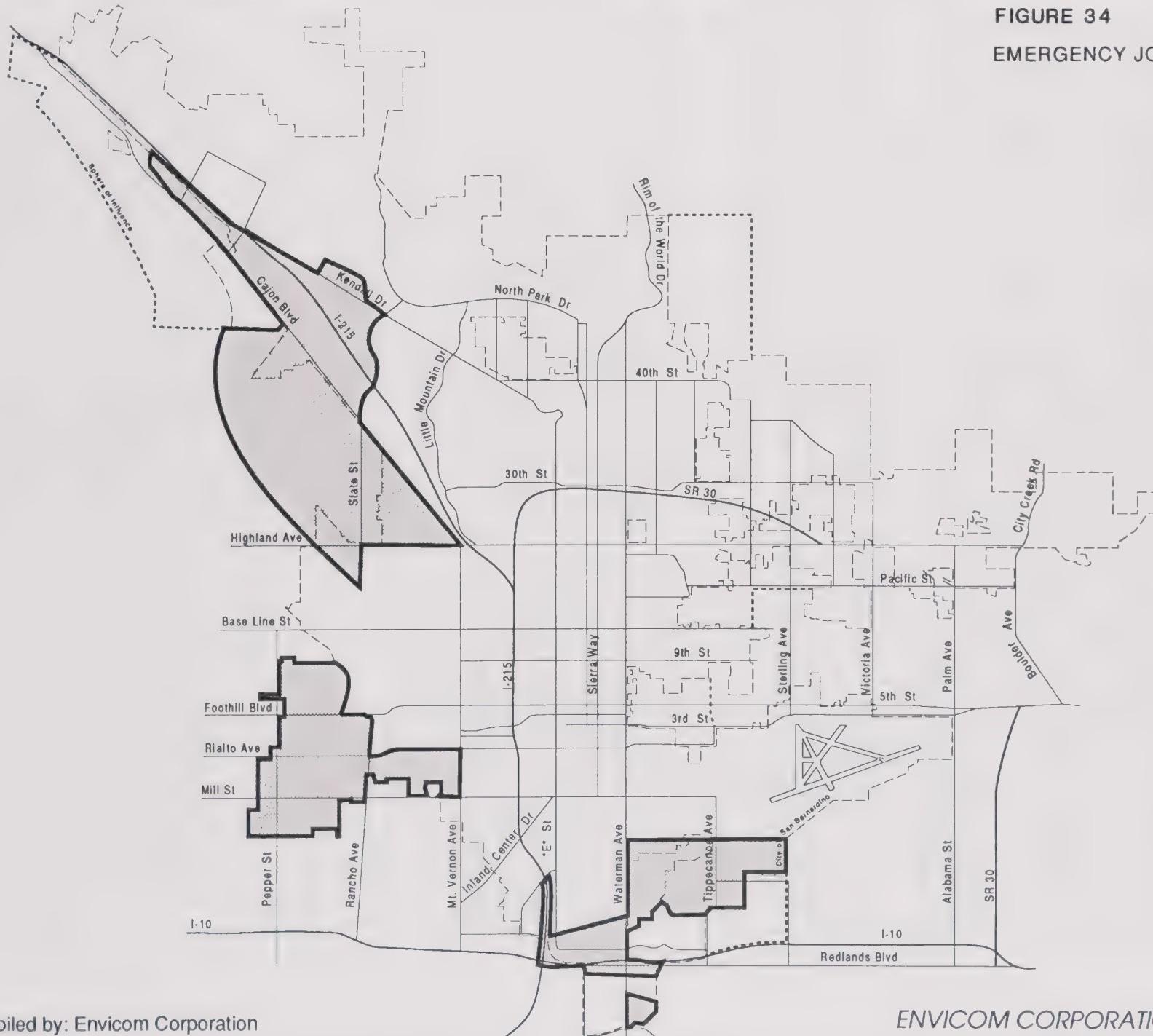
A study of City Fire Department response times was conducted in 1974 by Public Technology, Incorporated. The study was conducted by simulation modeling instead of actually using fire department equipment. The study resulted in a fire station relocation project. Four stations were vacated and three were built in other locations. This allowed a reduction of personnel and equipment accompanied by improved response times. The department attempts to maintain an average three-minute response time throughout the City. This is realistic according to the City Fire Department except in the northwest portion of the City, where another station is needed to reduce times, and in other areas during times of peak demand.

Unincorporated areas within the planning area receive fire protection and EMS delivery from the Central Valley Fire District (CVFD) or the California Department of Forestry/County Fire Department (CDF). San Bernardino County contracts with CDF for fire protection in areas not covered by other fire departments.

CVFD protects the Muscoy area. Their first-in station for that area is Station #75, on Darby Street. Subsequent CVFD units provide service from Fontana.

FIGURE 34

EMERGENCY JOINT RESPONSE AREAS



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CDF is responsible for the remaining unincorporated areas including the islands within the City limits. CDF has three stations in the area, a station at Baseline and Central in Highland, which is responsible for the City of Highland, a station at 38th Street and Sierra Way in the City, and a station on Cajon Boulevard, at the Devore off-ramp in the northwest portion of the planning area. The Sierra Way engine is staffed by paid-call firefighters. The Highland Station is provided with two firefighters and two paramedics backed up by 25 paid-call firefighters.

2. Fire Prevention

The City uses the Uniform Fire Code, the National Fire Codes, the California Administrative Codes, Title 19 and Title 24 as the basis for its enforcement programs. Along with these codes, the City has adopted more stringent fire regulations in the areas of building construction.

In construction of all new commercial buildings, automatic fire sprinklers are required when the building is over 5,000 square feet in area, except for Type I and II fire resistive construction. All roofs in the High Fire Hazard Area must be of Class C material when constructed or re-roofed. All chimneys in the City must be equipped with approved spark arresters. Any structure that is two or more stories in height must have paved access to within 50 feet of the structure for roof access.

The City Fire Department maintains an inspection program to ensure that all building and fire codes are in compliance. To meet the demands of the inspection program, the engine companies are responsible to inspect all multiple-family residential of three or more units and small retail units. The remainder of the buildings, uses, and licenses are handled by the fire prevention bureau. The bureau is made up of a fire marshal, assistant fire marshal, public education officer, four fire inspectors, and a fire investigator. All members of the Fire Department are responsible for the identification of generators of hazardous wastes, and their safe disposition.

There have been major accomplishments made in fire prevention in the hillside areas within the High Fire Hazard Area or the interface between the developed community and the brush area.

ISSUES

1. Fire Department response times should be evaluated periodically.
2. The City does not have a joint response agreement for fire suppression with the County of San Bernardino for unincorporated areas in the planning area. The California Department of Forestry is responsible for fire services in these areas. Because these areas are small and located close to the City limits, a joint response agreement could provide benefits to both agencies.

3. Annexation of unincorporated areas to the City will mean additional responsibilities for fire services. Anticipation of the responsibilities may facilitate annexations and ensure adequate levels of service.
4. Costly additions to fire suppression facilities may not be necessary if effective fire prevention measures are taken. Fire prevention measures can be evaluated for cost effectiveness and the reduction of injuries and loss of life from fires.
5. Portions of the Verdemont area are beyond the three-minute response time for emergency fire services. the capability of the Fire Department to provide emergency services for new development in the Verdemont area is in question.

GOALS, OBJECTIVES, AND POLICIES

The following presents goals, objectives and policies for fire service in the City of San Bernardino. Implementation programs are contained in the following subsection. At the end of each policy is listed a capital "I" and a number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 8C Protect the residents of San Bernardino from the hazards of fire.

Objective

It shall be the objective of the City of San Bernardino to:

- 8.3 Provide adequate fire facilities and protective services for existing and future residents.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.3.1 Assure that adequate facilities and fire service personnel are maintained by periodically evaluating population growth, level of service (response time) and fire hazards in the City (I8.13).
- 8.3.2 Assess the effects of increases in development density and related traffic congestion on the provision of adequate facilities and services ensuring that new development will maintain fire protection services of acceptable levels (I8.12 and I8.13).
- 8.3.3 Establish a program whereby new development projects are assessed a pro rata fee to pay for additional fire service protection to that development (I8.19).
- 8.3.4 Coordinate inter-agency fire service protection agreements with County U.S. Forest Service, and other fire protection agencies (I8.17).

Objective

It shall be the objective of the City of San Bernardino to:

- 8.4 Assure that all buildings provide adequate fire protection.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.4.1 Require that all buildings subject to City jurisdiction adhere to fire safety codes (I8.10, I8.11, I8.12, and I8.18).
- 8.4.2 Require that all new publicly owned buildings, commercial, industrial, and multiple-unit residential developments install fire protection systems in accordance with applicable codes (I8.11 and I8.15).
- 8.4.3 Study the feasibility of requiring fire protection systems in new single-family developments (I8.11).
- 8.4.4 Require all new residential and existing multi-family (three or more units) development to install and maintain adequate smoke detection systems. All rental units, new or existing, shall retain adequate smoke detection systems (I8.11 and I8.15).
- 8.4.5 Study the feasibility of requiring all existing commercial, industrial and multi-family (three or more units) development to install fire protection systems (I8.15).
- 8.4.6 Develop and implement a comprehensive high-rise fire safety program (I8.14).
- 8.4.7 Promote public education regarding fire safety to address issues such as storage of flammable material and other fire hazards (I8.16).

Objective

It shall be the objective of the City of San Bernardino to:

- 8.5 Maintain information regarding fire hazards and service.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.5.1 Continue uniform reporting of all fire emergency data including type and cause of fire alarm response time and damage/injury data (I8.13).

Objective

It shall be the objective of the City of San Bernardino to:

- 8.6 Protect the City from brush fire hazards.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.6.1 Require that development in the City's High Fire Hazard Area adhere to the site development and construction standards specified by Policies 15.2.1 through 15.2.7 (I8.10).

IMPLEMENTATION

The following lists the programs to implement the fire service element contained in the preceding subsection of the Plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

Ordinances

- I8.10 Incorporate in the City's Development and Building Codes pertinent fire hazard mitigation provisions of the Foothill Communities "Greenbelt" Program, as specified in I15.1.
- I8.11 Continue, or incorporate, as necessary, in the City's Building Code requirements for the installation of smoke detection systems in all new residential and existing multi-family (three units and more) development and fire protection systems in new commercial, industrial, and multi-family residential development projects.

Development Review

- I8.12 The City's design review process for proposed development shall assess its effects on the level of fire services provided to the community. This should include the identification of the nearest fire facility, personnel, and equipment, estimates of the potential service requirements of the project, estimates of the emergency response time, and specification of necessary facility and service improvements. Methods to fund the improvements shall be identified, which may include development fees and/or site dedication for facilities.

Administrative

- I8.13 Annually, the City, through the Fire Department, shall document fire events and services in the City. Among the factors to be considered will be the numbers, types and geographic concentrations of fires; amount, types, and costs of damage; number and types of injuries; emergency response time; costs to provide service; maintenance and quality of equipment and facilities; number of false alarms; and other pertinent data describing service characteristics. The effectiveness of the services to adequately respond to emergencies shall be assessed. Specific deficiencies, their contributing causes, and potential means to correct these shall be identified.
- I8.14 Maintain a fire safety and emergency evacuation program for high-rise structures and structures used for assembling people. This program shall include zoning and building requirements for the use of sprinklers, smoke alarms, emergency evacuation stairways and other routes, fire resistant

- materials, and architectural design elements which do not obstruct or hinder emergency access.
- I8.15 Continue to require the installation and maintenance of smoke detection systems in all new residential and existing multi-family residential (three and more units), and all residential rentals in the City. Undertake a study to identify the types of systems which can be installed in existing commercial, industrial, and multi-family residential building. If automatic sprinkler systems and other fire protection systems do not exist, evaluate the feasibility of their implementation. This study should be coordinated with the Fire Department, building engineers, other pertinent agencies, and construction industry representatives.
- I8.16 Establish through the Fire Department public education programs to enhance public awareness of fire safety including the storage of flammable materials and the use of fire retardant roof materials.
- I8.17 The City shall continue and periodically review its agreement to coordinate with the County and the U.S. Forest Service for mutual aid and fire services in unincorporated areas.
- I8.18 The City's code enforcement officer shall work with the Fire Department to enforce all existing codes and ordinances regarding fire protection including weed abatement and building inspection.
- I8.19 The City shall impose fees on development for the development of fire facilities and services as necessitated by that development, as permitted by State legislation.
- I8.20 The Fire Department shall pursue and upgrade the Insurance Service Office ISO rating for the City of San Bernardino.

C. EDUCATION

INTRODUCTION

This element defines policy for public education in the City of San Bernardino. While the State does not mandate or provide guidelines for the preparation of an education element, it does stipulate that the land use element provide for the development of such uses as a part of the overall land use development strategy.

EXISTING CONDITIONS

Educational services within the majority of the planning area is provided by the San Bernardino City Unified School District. Portions of the planning area also extend into Colton Joint Unified and Rialto Unified School Districts. San Bernardino residents attending schools in these two districts comprise approximately two percent of Colton's and twelve percent of Rialto's total school enrollments. A small undeveloped portion of the planning area in Highland Hills extends into Redlands Unified School District. As this area develops, its residents will attend schools in the Redlands Unified School District. Figure 35 depicts the four school district boundaries and maps those schools attended by planning area residents.

Each school district is divided into specific attendance areas as depicted in Figure 40. These areas define the attendance limits of each individual school, and are constantly being adjusted in response to student generation, ethnic balance, and other factors. During the year when an overcrowded school is "capped" and can't accommodate additional students, students are transported to other schools within the district where space is available.

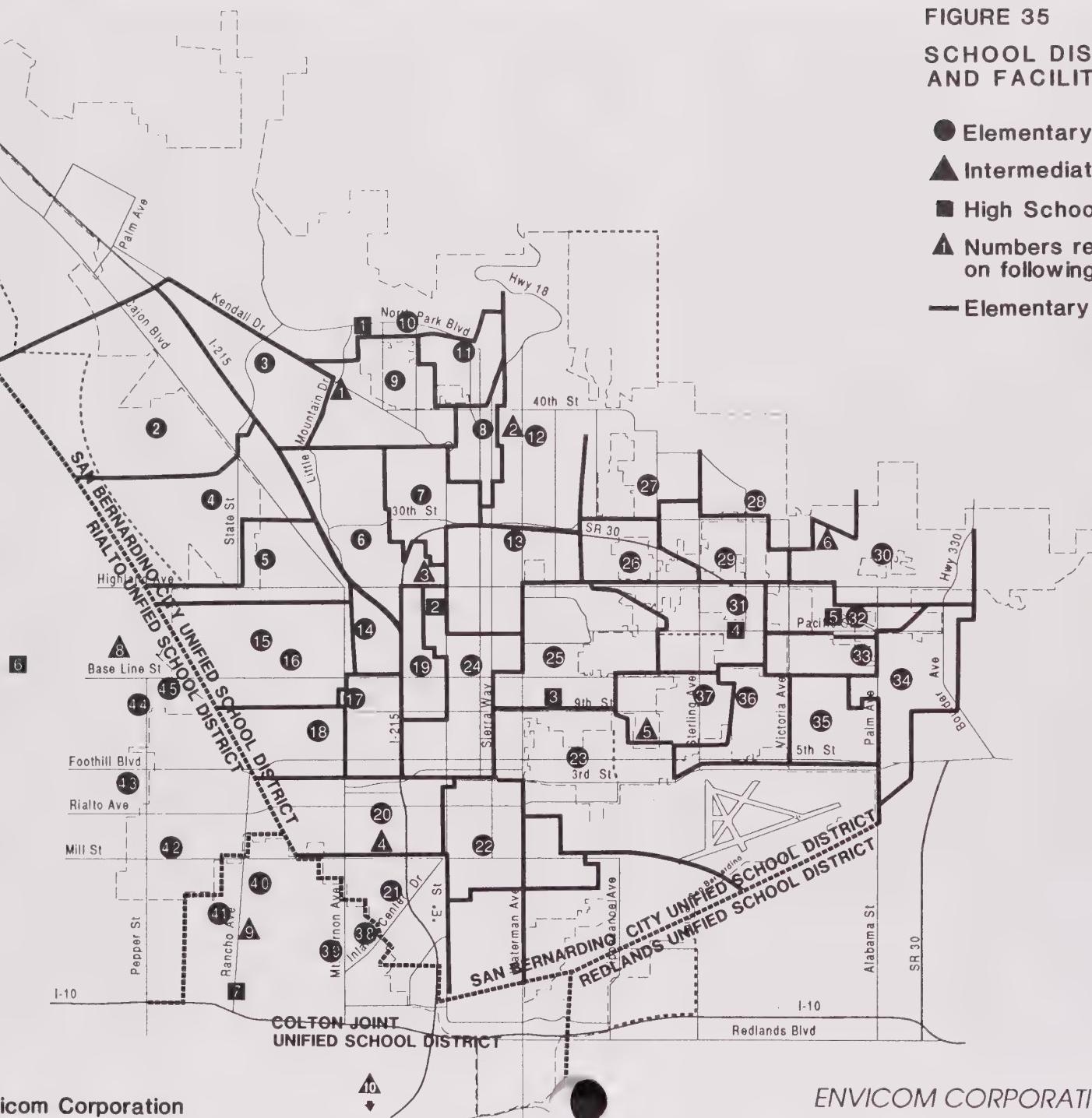
Tables 24, 25, and 26 provide current school enrollment rates and future projections (1988) for the three school districts*. Based on these enrollment projections, school capacities were calculated. In the San Bernardino school district, given an overall capacity of 22,091 students in the elementary schools and a projected enrollment of 21,903, elementary schools will be 99 percent utilized in 1988. The district's six intermediate schools have an overall capacity of 6,162 students with a projected enrollment of 5,317, resulting in facility utilization of 83 percent. San Bernardino's five high schools have capacity for 8,175 students, and are projected to have a 1988 enrollment of 7,937 students and operate at 97 percent of total capacity. Schools utilized by planning area residents in the Colton Joint Unified School District and Rialto Unified School District are projected to be 85 percent and 96 percent utilized in 1988, respectively.

In order to alleviate potential school overcrowding, the school districts are all planning for the opening of new schools, in addition to reopening some closed schools. Within

* Redlands Unified School District is not included in this analysis of education as no planning area residents currently attend schools in this district.

FIGURE 35
**SCHOOL DISTRICT BOUNDARIES
 AND FACILITIES**

- Elementary School
- ▲ Intermediate School
- High School
- ▲ Numbers refer to legend
 on following page
- Elementary School Boundaries



LEGEND - School District Boundaries and Facilities

Elementary Schools ●

1 - Kimbark	16 - King	31 - Emmerton
2 - Vermont	17 - Mt. Vernon	32 - Highland Pacific
3 - Kendall	18 - Ramona-Alessandra	33 - Cole
4 - Muscoy	19 - Riley	34 - Thompson
5 - California	20 - Lytle Creek	35 - Cypress
6 - Davidson	21 - Urbita	36 - Lankershim
7 - Marshall	22 - Burbank	37 - Warm Springs
8 - Arrowhead	23 - Monterey	38 - Alice Birney
9 - Newmark	24 - Lincoln	39 - Lincoln
10 - North Park	25 - Bradley	40 - McKinley
11 - Hillside	26 - Hunt	41 - Rogers
12 - Parkside	27 - Del Rosa	42 - Kelley
13 - Wilson	28 - Belvedere	43 - Casey
14 - Roosevelt	29 - Barton	44 - Bemis
15 - Rio Vista	30 - Oehl	45 - Myers

Intermediate Schools ▲

1 - Shandin Hills
2 - Golden Valley
3 - Arrowview
4 - Richardson
5 - Curtis
6 - Serrano
7 - Kolb
8 - Frisbie
9 - Colton
10 - Terrace Hills (not shown on map)

High Schools ■

1 - Cajon
2 - San Bernardino
3 - Sierra
4 - San Gorgonio
5 - San Andreas
6 - Eisenhower
7 - Colton

TABLE 24

San Bernardino City Unified School District
Enrollment Projections

<u>Special Enrollment²</u> <u>Circumstances</u>	<u>School</u>	<u>6/18/87 Enrollment</u>	<u>87-88 Projected</u>	<u>F.M.C.³ (3/87)</u>	<u>Percent of Cap.¹ Using 87-88 #s</u>
Elementary: (Grades K-6 Unless Otherwise Indicated)					
(Reg & YRE)	Alessandro (K-5)	847	896	867-933	[96]
	Arrowhead (K-5)	335	351	386	91
	Barton	382	384	356-422	91
	Belvedere	820	638	546-612	104
	Bradley	833	907	836-934	97
	Burbank	317	397	290-323	123
	California	424	486	482-548	87
	Cole	492	430	482-548	79
	Cypress	506	553	610-676	82
	Davidson	458	501	514-547	92
	Del Rosa	757	790	739-838	94
(CYRE 87-88)	Emmerton	637	711	578-644	[110]
	Highland-Pacific	410	478	322-388	123
	Hillside	Not Open	398	578-644	62
(Reg & YRE)	Hunt	650	710	642-708	[100]
	Kendall	431	532	354-387	138
	Kimbark	477	516	290-356	145
	King (4-6)	500	566	608	93
	Lankershim	511	617	546-579	107

Notes:

[] Year round schools in which all students are not in attendance simultaneously.

Intermediate and High School enrollment figure do not include alternative study students.

-
1. Percentage of capacity is figured using 87-88 projected enrollment and high-end number for F.M.C.
 2. YRE and CYRE stands for Year Round Enrollment or Continuous Year Round Enrollment.
 3. Functional Maximum Capacity (F.M.C.).

TABLE 24 (Cont.)

<u>Special Enrollment Circumstances</u>	<u>School</u>	<u>6/18/87 Enrollment</u>	<u>87-88 Projected</u>	<u>F.M.C. (3/87)</u>	<u>Percent of Cap. Using 87-88 #s</u>
(CYRE)	Lincoln	636*	1,014	674-740	[137]
(CYRE 87-88)	Lytle Creek	560	662	546-612	[108]
	Marshall	477	447	482-515	87
	Monterey	672	736	643-742	99
	Mt. Vernon	652	657	642-708	93
	Muscoy	688	652	610-676	97
	Newmark	488	471	484-517	91
	North Park	668	571	578	99
	Oehl	531	552	546-612	90
	Parkside (K-5)	490	450	482-515	82
	Riley	593	648	610-676	96
	Rio Vista (K-3)	647	703	609-642	110
	Roosevelt	790	850	771-870	98
	Thompson	515	568	514-547	104
	Urbita	309	321	289	111
	Vermont	457	559	514-580	96
	Warm Springs	699	723	641-674	107
	Wilson	424	461	418-484	95

Intermediate: (Grades 7-8 Unless Otherwise Indicated)

Arrowview	853	894	1,119	80
Curtis	913	1,064	1,255	85
Golden Valley (6-8)	891	989	1,144	87
Richardson (6-8)	400	437	450	97
Serrano (6-8)	844	884	1,230	72
Shandin Hills	1,011	1,049	964	109

High Schools: (Grades 9-12 Unless Otherwise Indicated)

Cajon	1,897	2,147	2,476	87
San Bernardino	2,099	2,531	2,331	109
San Gorgonio	2,361	2,654	2,793	95
San Andreas (Cont.)	74	175	145	121
Sierra (Cont.)	360	430	430	100

* Figure is missing "A" track students of a year-round school.

TABLE 25

Rialto Unified School District
Enrollment Projections for Schools
Attended by Planning Area Residents

<u>School</u>	<u>11/15/86 Enrollment*</u>	<u>Projected 11/87 Enrollment</u>	<u>Permanent Capacity</u>	<u>% of Cap.</u>	<u>Portables At. 30 Ea.</u>		<u>Expected Capacity (Actual)</u>	<u>% of Cap.</u>
Myers Elementary	523	559	610	82	(2)	60	670	86
Kelley Elementary	831	889	679	131	(5)	150	829	107
Casey Elementary	727	785	660	119	(2)	60	720	109
Bemis Elementary	582	629	555	113	(6)	180	735	86
Frisbie Jr. High School	1,103	1,158	1,267	91	(3)	90	1,357	85
Kolb Jr. High School	1,373	1,469	1,148	128	(6)	180	1,328	107
Eisenhower High School	2,579	2,400	2,234	107	(8)	240	2,474	97

8-24

* Includes Special Ed.

TABLE 26

Colton Joint Unified School District
Enrollment Projections for Schools
Attended by Planning Area Residents

	<u>6/19/87 Enrollment</u>	<u>87-88 Projected</u>	<u>School's Maximum Capacity</u>	<u>% of Max. Using 87-88 #s</u>
<u>Elementary: (K-6)</u>				
1. Birney	491	574	672	85.5%
2. Lincoln	641	668	672	99
3. McKinley	597	598	672	89
4. Rogers	611	637	672	95
<u>Junior High: (7-8)</u>				
1. Colton	522	587	800	73
2. Terrace Hills	562	606	800	76
<u>Secondary: (9-12)</u>				
1. Colton High	1,664	1,867	2,500	75

the San Bernardino school district, three existing schools will be reopened (Muscott Elementary and Del Vallejo Junior High School by September, 1988, and Pacific High School by September, 1989). A new school, North Verdemont Elementary, is scheduled to open September, 1989. Figure 36 outlines the ten-year school construction plan for the San Bernardino school district. Colton school district has four new elementary school sites planned, Redlands three elementary and one high school, and Rialto two elementary schools and one high school. These schools will not all necessarily be utilized by San Bernardino residents, but will help to alleviate overcrowding in district schools attended by the planning area residents.

All of the three school districts belong to the State School Building Program which allocates monies for school construction. In light of Proposition 13 budget cuts, state and local school funding is unable to satisfy the need for new schools as projected by the districts. Assembly Bill 2926 was passed in September, 1986 which grants school districts the authority to levy developer fees on new construction at a rate of \$1.50 a square foot for residential development and 25 cents a square foot for commercial and industrial development. While AB2926 is utilized by the three school districts, these fees provide only one-third of the full cost of needed school facilities generated by development. In addition, developer fees collected under AB2926 are deducted from the district's share of State school monies.

San Bernardino City Unified and Rialto Unified School Districts have begun a year-round education program at several schools. (Table 25 identifies schools currently utilized on a year-round basis in the San Bernardino City Unified School District; no schools attended by planning area residents in the Rialto Unified School District are currently on a year-round session.) By utilizing facilities all year around, each school can accommodate between 25 and 33 percent more students. While both districts are continuing to plan for more year-round schools, parental concerns have slowed the conversion of more schools to a year-round cycle. Colton Joint Unified School District does not utilize the year-round education program.

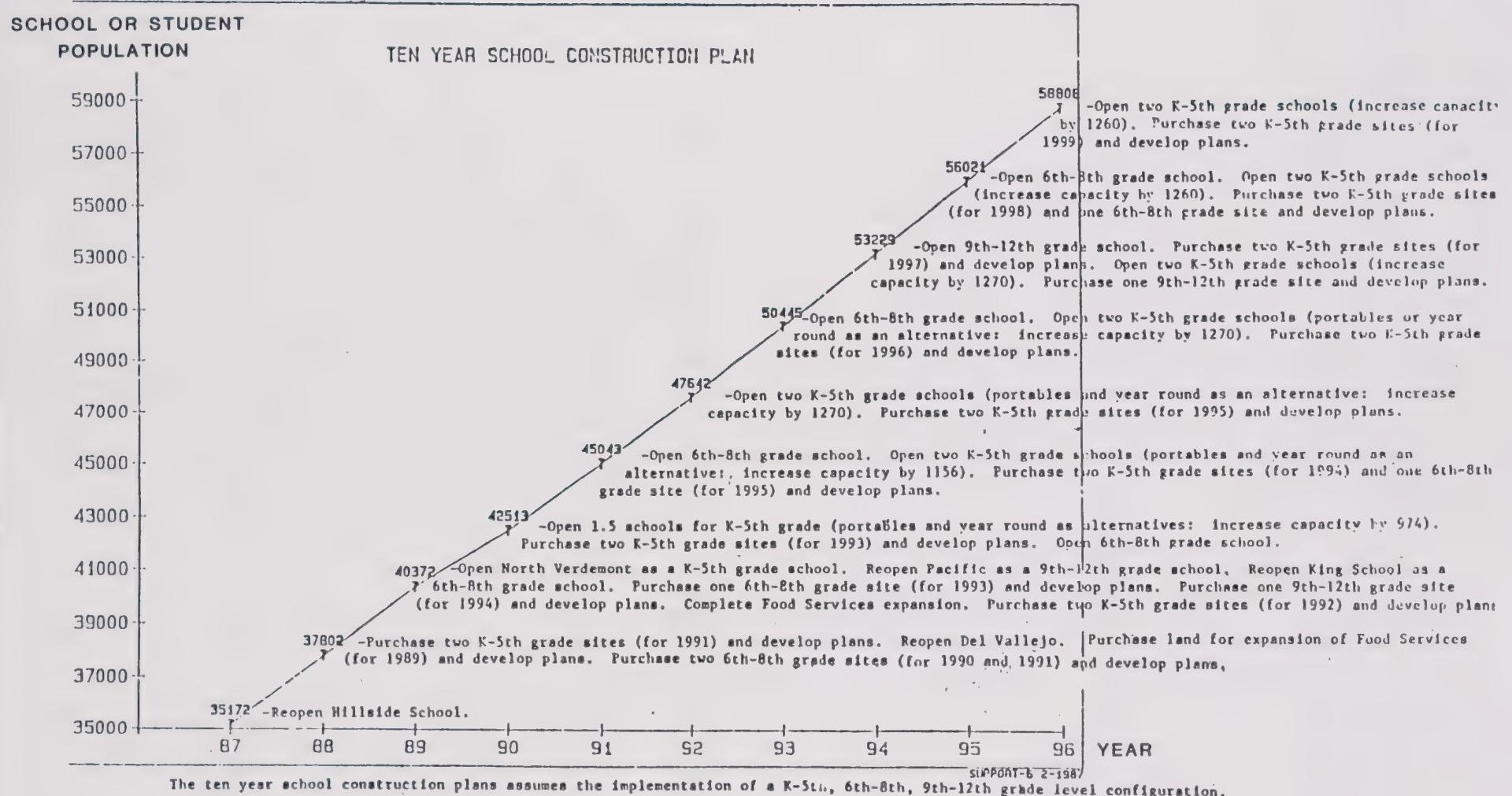
Higher education in the planning area is provided by San Bernardino Valley College and California State University, San Bernardino. Valley College enrolls approximately 11,200 students in a two-year liberal arts program, and includes technical, vocational, certificate and transfer programs. Cal State San Bernardino functions as a four-year liberal arts and sciences college. Its student body of 8,000 are enrolled in 36 different baccalaureate and 12 different master degree programs.

ISSUES

The following issues regarding schools and education in the planning area have been identified:

1. School overcrowding has resulted in decreased teacher-to-pupil ratios, thereby lessening the quality of education provided.

FIGURE 36



SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

TEN YEAR SCHOOL CONSTRUCTION PLAN

ENVICOM CORPORATION

2. School busing is used to reduce enrollments in overcrowded schools.
3. Projected school enrollments predict even greater overcrowding, and State school funding and developer fees are inadequate to meet the demand for new school facilities.

GOALS, OBJECTIVES AND POLICIES

The following presents goals, objectives and policies for education, including public and private schools, continuing education, and public informational programs, in the City of San Bernardino. Implementation programs are contained in the following subsection. At the end of each policy is listed a capital "I" and a number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 8D Encourage that the educational needs of the City's residents are met.

Objective

It shall be the objective of the City of San Bernardino to:

- 8.7 Encourage that adequate school facilities are provided for all students in the City and its sphere of influence.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.7.1 Monitor the residential growth of the City and work with the local school districts to expand facilities and services to meet educational needs (I8.21, I8.22, I8.24, and I8.25).
- 8.7.2 Work with the School District to ensure that new residential subdivisions dedicate land or contribute fees for the expansion of school facilities to meet the needs attributable to the new housing (I8.22, I8.24).
- 8.7.3 Work with the School District to consider alternative funding programs for school facilities construction and provision of educational programs should there be a shortfall of traditional revenue (I8.21).

Objective

It shall be the objective of the City of San Bernardino to:

- 8.8 Continue and expand educational and information programs for the City's residents.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.8.1 Cooperate with the San Bernardino City Unified School District, California State University at San Bernardino and San Bernardino Valley College to ensure that adequate educational services are provided for youth; the educational needs of the students are being monitored, and the educational curricula is being designed to meet these needs (I8.21 and I8.25).
- 8.8.2 Work with the Unified School District and all local educational agencies, including private schools to provide continuing adult education courses (I8.25).
- 8.8.3 Establish programs to provide information regarding City services including those for senior citizens, youth, cultural, recreation, and public safety.
- 8.8.4 Evaluate the appropriateness and feasibility of establishing a new City staff position to coordinate the dissemination of information regarding City programs (I8.27).
- 8.8.5 Evaluate the appropriateness and feasibility of initiating a cable television program to televise Mayor and Common Council meetings, provide information regarding City programs and educate the general public on the functions and activities of city government (I8.28).
- 8.8.6 Provide emergency information and public education in the event of a disaster by developing a television override system to enable the proper authority to broadcast emergency information and an ongoing program of educational information relating to proper emergency and protective measures during a disaster (I8.27).

IMPLEMENTATION

The following lists the programs to implement the education policies contained in the preceding subsection of the Plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

- I8.21 The City shall work with local educational agencies, who shall monitor annually the adequacy of public educational facilities in meeting the needs of the students and population in keeping pace with population growth.
- I8.22 New residential development shall be assessed as a part of the development permitting process according to its effects on increasing enrollment in local schools. The School District shall require land dedications for the construction of new schools or in-lieu fees as adopted by the District in accordance with State law.
- I8.23 The City, as requested, shall meet with the School District to discuss School District facility programs needs and make recommendations to mitigate facility needs if required.
- I8.24 The City shall work with the School District to keep them apprised of proposed plans and development projects to ensure that school facilities keep pace with development.
- I8.25 Maintain liaison with local educational institutions to continue adult educational classes.
- I8.26 The City shall develop and administer an annual public information program. This will include publications, press releases, workshops and classes addressing special issues and concerns. Programs sponsored by the Parks and Recreation Department may include, but are not limited to, the following: senior citizens fairs, discount programs to San Bernardino parks, adult classes and youth after-school activities.
- I8.27 Consider hiring a public information officer to coordinate information dissemination of City programs and activities. Some duties may include producing newsletters, writing press releases, cable television programming, and workshops.
- I8.28 In order to educate the public regarding City government operations and programs, consider designating a cable television channel to broadcast Mayor and Common Council meetings and other activities of general interest and educational value to City residents.

I8.29

The City shall implement an emergency system with the local cable company that will automatically override existing programming to broadcast emergency information to the residents in the event of a disaster (e.g., earthquake, fire, etc.).

D. CIVIC INSTITUTIONS AND CULTURAL FACILITIES

INTRODUCTION

This element defines policy for the civic and cultural institutions in the City of San Bernardino planning area. While the State does not mandate or provide guidelines for the preparation of civic and cultural elements, it does stipulate that the land use element provide for the development of such uses as a part of the overall land use development strategy.

BACKGROUND DATA AND ANALYSES

San Bernardino's cultural achievements are measured as much by the activities of local organizations as the facilities that house them. Art associations, theater and dance groups, an historical society, opera association, symphony, and a concert association contribute to San Bernardino's cultural climate. In addition, the Mayor's Office of Cultural and International Affairs organizes cultural events in the City, including a sister cities program between San Bernardino and seven international cities. The Mayor and Common Council have recently approved a one-half percent assessment on new commercial development to be dedicated to the arts; annual revenues from this assessment are estimated at \$230,000.

The San Bernardino planning area contains a variety of civic institutions, including City and County government offices, two public colleges and the public library system. Cultural facilities include theaters, art galleries, a civic auditorium and a museum. Figure 37 depicts the location of civic institutions and cultural facilities in the planning area and they are described below:

1. Civic Center: San Bernardino's Civic Center area as the County seat, is comprised of City, County and State Institutions. These include City Hall, Hall of Records, County Administration Center, County Courthouse, Hall of Justice, County Law Library, Police Station, County Sheriff, and various State offices including the State Highway Department. The City's Convention Center is integrated with the new Maruko Hotel located adjacent to City Hall.
2. California State University San Bernardino: Cal State opened in 1965 and offer 36 baccalaureate and 12 master degree programs to over 8,000 students. In addition to its academic facilities and Pfau Library, Cal State includes three cultural facilities: the University Art Gallery, University Theater, and the Music Department Recital Hall.
- 2a. University Art Gallery: The largest art gallery in San Bernardino, the University Art Gallery hosts temporary exhibits which include student shows, faculty shows, and exhibits of prominent national and international artists.

FIGURE 37
CIVIC INSTITUTIONS AND CULTURAL FACILITIES

- ① Civic Center
- ② California State San Bernardino
 - 2a University Art Gallery
 - 2b Music Department Recital Hall
 - 2c University Theatre
- ③ San Bernardino Valley College
 - 3a Valley College Art Gallery
 - 3b Valley College Auditorium
- ④a Norman Feldheim Library
- ④b Dorothy Ingram Branch Library
- ④c Paul Villasenor Branch Library
- ④d Howard M. Rowe Branch Library
- ④e May Coddington Branch Library
- ⑤ San Bernardino County Library Administration
- ⑥ Sturges Auditorium
- ⑦ California Theatre of Performing Arts
- ⑧ Heritage House Museum
- ⑨ San Bernardino County Museum
- ⑩ Franklin D. Roosevelt Bowl
- ⑪ National Orange Showgrounds
- ⑫ Convention Center



- 2b. Music Department Recital Hall: The Music Hall at Cal State accommodates 248 persons. In addition to student recitals, the Music Department Recital Hall hosts a variety of performance series including the Inland Empire Ensemble Programs; Faculty Artist Series; and Intimate Performance Series which includes jazz, chamber orchestra, and concert choir.
- 2c. University Theatre: This 143-seat theater sponsors student as well as professional productions.
3. San Bernardino Valley College: Established in 1927, this junior college enrolls approximately 11,200 students in a two-year liberal arts program. The SBVC Art Gallery and SBVC Auditorium are located on the campus.
- 3a. Valley College Art Gallery: A small art gallery housing predominately student works.
- 3b. Valley College Auditorium: This theater provides an approximate seating capacity of 400 and hosts an average of eight student-run productions per year. The auditorium is also used on a more limited basis for professional productions.

City of San Bernardino Public Libraries:

- 4a. Norman Feldheym, 555 W. 6th Street
- 4b. Dorothy Ingram Branch, 1505 W. Highland Avenue
- 4c. Paul Villasenor Branch, 525 N. Mt. Vernon Avenue
- 4d. Howard M. Rowe Branch, 108 E. Marshall Boulevard
- 4e. May Coddington Branch, 1003 E. Highland Avenue

The City's library system contains holdings of approximately 260,000 books, with an annual circulation of 250,000. The central library, Norman Feldheym, is one of the largest in the Inland Empire, and attracts users from throughout the valley region. Its California Room contains an extensive collection of San Bernardino County historical materials, in addition to being home to the California Genological Society. The Braille Room provides educational services to the blind, including audiobooks, films, and recorders. The library contains a computer lab and provides tutorial classes for computer use. The Feldheim Bing Wong Hall hosts music, lectures, and an ongoing concert series. Two rooms are dedicated to exhibiting local artwork, while literary and cultural exhibits are presented in display cases in the library's lobby. The City's four branch libraries also offer a variety of services, though on a lesser scale than Feldheim.

5. San Bernardino County Library, Administration, 104 W. 4th Street: While the City independently runs the five libraries in its system, this County library office serves

as the clearinghouse for government publications, and is open to the public for the use of these documents.

6. Sturges Auditorium, southwest corner of 8th and E Street: This 1927 historic landmark was recently renovated and reopened to the public, hosting a variety of theater, music, and dance productions. It will be the future home of the Sturges Center Theatre Company, and provide office space for a number of local cultural groups, including the San Bernardino concert Association, the Inland Empire Symphony, and the San Bernardino Art Association. The auditorium has a seating capacity of 774. It includes a ballet studio, art gallery, separate facility for films, 40-person capacity conference room, and outdoor gazebo suitable for concerts.
7. California Theatre of Performing Arts, 562 W. 4th Street: The largest indoor theater in the City with seating for 1,760, this historic theater originally housed both stage plays and motion picture previews from Hollywood. The theater is continually being upgraded, and has recently received new seating, display rooms, and a theater bar. It is currently owned by the Civic Light Opera Association who produces four major live musicals in the theater annually. It serves as home to productions by the Inland Empire Symphony, San Bernardino Concert Association, and Community Arts Production.
8. Heritage House Museum, Southwest corner of 8th and D Streets: This restored Queen Anne Victorian is the home of the San Bernardino Historical and Pioneer Society, the City's historic preservation group. The museum house displays an historically representative diorama of artifacts of San Bernardino's Victorian era, including a collection of historic furnishings, china, guns, and musical instruments.
9. San Bernardino County Museum, 2024 Orange Tree Lane, Redlands: Though located outside the City's boundaries in Redlands, this natural history museum is an important cultural resource which serves San Bernardino residents. The museum contains three floors and over 50,000 square feet of exhibit space. Among its collections are displays on birds (the largest in the world), mammals, minerals and rocks, and Native American history. The museum also contains an art gallery which displays local and traveling art exhibits.
10. Franklin D. Roosevelt Bowl, South of Highland Avenue at Valencia Avenue: Located in Perris Hill Park, this outdoor amphitheater contains a seating capacity for 1,800 persons. The City hosts an entertainment series which includes musical and theater performances.
11. National Orange Showgrounds, 689 South "E" Street: In addition to the exhibit buildings which annually house the National Orange Show, the showgrounds contain a large stadium which is used for a variety of sports and musical performances.
12. Convention Center, 295 North "E" Street: The City's convention center is slated to reopen in April of 1988 as part of the new Maruko Hotel located adjacent to City

Hall. Its 1,500-person capacity will be one of the largest in the County. The convention center will solicit business from the State-wide convention market, as well as from government and corporate business. Facilities will also accommodate local banquets, dinner functions, and smaller meetings.

ISSUES

The following issues regarding civic institutions and cultural facilities in the planning area have been identified:

1. Arts and culture in San Bernardino are somewhat localized, offering a variety of cultural activities to serve the resident population, yet generally lacking larger, more prestigious cultural resources which could be supported by a metropolis of this size.
2. Library funding competes with the City's other General Fund allocations. Projected increases in library usage generated by development may overload the library systems's capacity to provide adequate services without appropriate funding increases.
3. The City's Public Art Ordinance which generates monies to be dedicated to the arts provides an opportunity for the enhancement of art and culture in San Bernardino.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for cultural services in the City of San Bernardino. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "T" and number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 8E Maintain and enhance the cultural quality of life for the City's residents.

Objective

It shall be the objective of the City of San Bernardino to:

- 8.9 Continue existing and expand public and private cultural and fine art facilities and activities.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.9.1 Actively support public and private arts activities; establishing a staff position to coordinate City sponsored programs, private support activities, loans and grants, and other means of participation (I8.30).
- 8.9.2 Work with public and private organizations in the community, county, and state to ensure that cultural and art programs are coordinated (I8.30, I8.31).
- 8.9.3 Conduct an annual meeting with public and private organizations providing arts and cultural services to City residents to maintain lines of communication between all groups and exchange information regarding services and programs which are provided and community needs (I8.30).
- 8.9.4 Continue and implement the master plan of fine arts and update no less often than once each five years (I8.33).
- 8.9.5 Maintain a calendar of City-sponsored arts and cultural events and local celebrations (I8.30 and I8.31).
- 8.9.6 Organize and support permanent and temporary exhibits of paintings and sculpture in public and private buildings and open spaces (I8.30 and I8.34).

- 8.9.7 Solicit the presentation of major art exhibitions in the City (I8.34).
- 8.9.8 Require developers to incorporate art in new commercial and industrial projects or contribute in-lieu fees for public art improvements as permitted by State Law (I8.29, I8.38, and I8.43).
- 8.9.9 Incorporate sculpture, paintings, and other forms of art in City buildings (I8.38).
- 8.9.10 Incorporate elements of art in the City's key activity and pedestrian-oriented districts, as defined by Urban Design for Public Spaces policy (I8.39).
- 8.9.11 Evaluate the feasibility for the development of a regional center for the performing and fine arts (I8.46).
- 8.9.12 Evaluate the feasibility of developing a facility as an archive for the City's historical resources (I8.47).

Objective

It shall be the objective of the City of San Bernardino to:

- 8.10 Ensure that the public is aware of cultural and art programs and opportunities in the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.10.1 Coordinate and promote the public's awareness of fine arts programs through City newsletters and other publications and cable television public access channels (I8.30 and I8.31).
- 8.10.2 Facilitate the formation of community groups involved in cultural activities and provide artists, craftsman and dancers with communication opportunities by establishing a referral service or newsletter (I8.30 and I8.32).
- 8.10.3 Work with recreation services and schools to develop fine art appreciation program (I8.42).
- 8.10.4 Enhance the public's awareness of native and ethnic art through educational programs and site visits (I8.34, I8.35, and I8.47)

Objective

It shall be the objective of the City of San Bernardino to:

- 8.11 Ensure that arts and cultural programs are funded.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.11.1 Annually allocate funds to support cultural and arts activities in the City (I8.41).
- 8.11.2 Solicit state and federal funds to support local cultural and arts activities, as they are available (I8.142 and I8.43).
- 8.11.3 Solicit corporate sponsorship and private donations for public art and art and cultural facilities and programs (I8.42 and I8.44).
- 8.11.4 Continue measures that require the allocation of a percentage of public and/or private building construction costs to be allocated for "Art in Public Places" and the performing arts (I8.43).

Objective

It shall be the objective of the City of San Bernardino to:

- 8.12 Ensure that adequate library services and facilities are provided to the City's residents.

Policies

It shall be the policy of the City of San Bernardino to:

- 8.12.1 Construct new libraries and rehabilitate and expand existing libraries as required to meet the needs of existing and future residents (I8.45).
- 8.12.2 Acquire materials for the library facilities that reflect the needs and interests of the City residents (I8.37).
- 8.12.3 Expand programs in literacy, computer training, audiobooks, videos, reference resources, lectures and artwork exhibitions (I8.45).
- 8.12.4 Increase handicap access to library facilities as feasible (I8.40).

- 8.12.5 Provide outreach services for seniors and the handicapped, if they cannot visit library facilities (I8.40, and I8.45).
- 8.12.6 Provide appropriate linkages for the library's use of telecommunication and computer-based data for the storage, retrieval and display of information including online access and CD Rom, as technologies develop and are standardized (I8.36).
- 8.12.7 Facilitate the library's linkages to any cable communication system linked to the City's residences or businesses so that information can be accessed by other locations (I8.36).
- 8.12.8 Continue to provide funding for library facilities and activities, examining other potential funding sources, including state and federal and corporate and private contributions (I8.41, and I8.42).
- 8.12.9 Develop and install automated library circulation system and automated catalog for accurate and efficient control of materials (I8.45).
- 8.12.10 Provide for future patron access to catalog via home microcomputer (I8.36).

IMPLEMENTATION PROGRAMS

The following lists the programs to implement the cultural policies contained in the preceding sub-section of the Plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

Zoning and Ordinances

- I8.29 Through the City's development code, permit the development of the arts, cultural, educational and related uses in key activity areas of the City with particular emphasis on increasing these uses in the downtown. Incorporate standards which will allow for temporary and permanent artistic, cultural and entertainment activities within public and private buildings and open spaces

Administration

- I8.30 Establish a full-time staff position for a Fine Arts Manager, as funding is available, whose function will be to coordinate art and cultural activities with public and private groups, serve as an information center, assist with publicity, spearhead fund raising activities and enhance public awareness and participation in cultural activities. This person shall be responsible for conducting an annual meeting of arts and cultural groups, reporting the status of cultural and arts activities to the Mayor and Common Council once a year.
- I8.31 The City shall maintain a calendar of arts and cultural events. Effectively, this will function as a clearinghouse by which public and private events can be coordinated. The calendar shall be published no less often than quarterly.
- I8.32 The City shall maintain and publish information regarding cultural organizations serving its residents. This may include each organizations' name, address, telephone number, description of activities, calendar of events and meetings, costs of membership and participation, and other relevant information. Based upon this information, consider establishing a referral service or a newsletter for artists, craftsman and dancers. If possible, provide opportunities for volunteer participation in cultural arts administration.
- I8.33 The City shall update the Fine Arts Master Plan at least every five years. This shall include an assessment of community needs, evaluation of the effectiveness of current facilities and programs to meet these needs, programming of facilities and activities, and identification of funding sources.

- I8.34 The City shall contact local artists and artist groups, southern California and national museums, local and national corporations and philanthropic organizations, and other appropriate groups to solicit the temporary exhibition or permanent donation of works of art to be displayed in libraries, museums or other public places. In particular, the City shall seek the local display of major art exhibits sponsored by national museums. The Fine Arts Manager shall submit such a program for approval by the Fine Arts Commission.
- I8.35 Evaluate the feasibility of providing specialized programs for children, adults, disabled individuals, senior citizens and members of cultural and/or minority groups. Support and promote services for the Indian Summer Concert Series, Castillo Festival, Sturges Auditorium Civic Light Opera, Library Art Galleries and Music Series, and other programs.
- I8.36 The City shall work with the library to ensure that the facility is linked to information transmission facilities as they are initiated and expanded in the City and promote its use of computer-based information so they can be accessed at the library or by telecommunications and remote library terminals.
- I8.37 Survey the research needs and interests of the community. This could be conducted through door-to-door or mail surveys. Based upon the results of the survey, the library shall attempt to acquire books, periodicals and other forms of information for the residents.

Public Improvements

- I8.38 The City shall incorporate art in City buildings. This may include paintings, sculpture, historical artifacts, and other elements. Emphasis should be placed on obtaining works of art created by local artists.
- I8.39 The City shall provide for the use and exhibition of art and public performances spaces in the urban design improvement of public open spaces. These shall be incorporated as design and development plans are prepared for pedestrian-oriented areas in the downtown, Mount Vernon Theme Center, Tri-City/Commercenter area, Santa Fe Railroad Depot Specialty Center, and other appropriate locations (as defined in Section 5.0, Urban Design for Public Spaces).
- I8.40 Establish a capital improvement program for the provision of handicapped facilities at libraries, where they do not exist and are physically feasible.

Funding

- I8.41 The City shall maintain funding programs for library and cultural and arts facilities and programs. Annually, the needs for these shall be reviewed and funds allocated, as available.
- I8.42 The City shall identify and solicit funding from additional sources to support the arts, cultural, and library facilities and activities. These may include state and federal grants or loans and donations or sponsorships by local and national corporations, philanthropic organizations, and other private individuals and groups.
- I8.43 The City shall continue the assessment of all new commercial construction for the support of public art. This fee shall be periodically reviewed for its effectiveness and increased, as necessary. Funds generated should support art groups, cultural facilities, staff and City public art projects.
- I8.44 Encourage private funding for local art programs. The City shall support art resources (facilities and individuals) in the City and encourage businesses, foundations, and individuals to establish or continue their endowments and programs.
- I8.45 The City shall work with the Board of Library Trustees to ensure adequate services are provided to the residents. The City will assist in the Library in identifying additional sources to fund improvements such as developer fees, tax credits for the contribution of books and other resources and public fund raising campaigns. Priorities for improvements shall include, but not be limited to, new branches in the northeast and northwest areas of the City.
- I8.46 Establish a task force to determine the feasibility and funding sources for establishing a Regional Center for the Performing and Fine Arts. Its members should represent the city, county, and state governments and the private sector.
- I8.47 Establish a task force to evaluate the feasibility and funding sources for the establishment of an archival center for the maintenance and study of the City's historic and ethnic resources. Such may be developed as an operation of the Library or separate entity.

9.0 PARKS AND RECREATION

INTRODUCTION

California State law does not mandate the preparation of a Parks and Recreation Element of the General Plan. However, they are often prepared by cities and counties due to the concern of providing sufficient parkland for residents, relationship of park space to a city's entire open space resources (a required plan element), and requirement for preparation as a condition of use of the Quimby Ordinance.

BACKGROUND DATA AND ANALYSES

A. EXISTING FACILITIES AND CLASSIFICATION STANDARDS

Existing recreational facilities within the planning area are categorized into four classes: mini-parks, neighborhoods parks, community parks, and regional parks. Each of these is based on standards commonly used by the park and recreation profession nationwide. The following indicates park classification system and standards used by the City (Table 27).

There are a total of 40 developed parks and recreational facilities in the City. Of these, 13 are neighborhood, six are community, three are regional parks. They contain a broad range of facilities, including children's play equipment, tennis and volleyball courts, and athletic fields. The remaining 18 park areas are classified as mini-parks or special facilities, i.e., tot lots, ball fields, community buildings, and the more space consumptive facilities like football and soccer fields. Table 28 indicates the City parks by type, size and available facilities. Figure 38 depicts the location of these parks.

Regional parks are defined as large open spaces of 50 acres or more providing facilities which attract views from a broad geographic area. Regional park facilities usually include beaches or lakes, wildlife habitats, golf courses, trails in nature areas, and picnicking and camping facilities. The San Bernardino planning area has three parks that are classified as regional facilities. Patton Park contains 80 acres and provides five lighted baseball diamonds. Perris Hill Park contains over 60 acres and provides programs and special facilities for regional sports competition. Seccombe Lake State Urban Recreation Area exceeds 50 acres and contains a fishing lake. All of the regional parks provide a variety of active and passive recreational facilities that augment those provided in the Community parks.

Seccombe Lake State Urban Recreation Area was acquired and developed with State Funding and is operated by the City with State supplementing the operation and maintenance costs. The State supplement decreases to zero in 1991 at which time the property will be returned to the City as a City park.

TABLE 27
San Bernardino Park Classification System and Standards

<u>Component</u>	<u>Use</u>	<u>Service Area</u>	<u>Size</u>	<u>Desirable Site Characteristics</u>
Mini-Park	Specialized facilities that serve a concentrated or limited population or specific groups such as tots or senior citizens or specific programs such as youth and adult athletics.	Approximately 1/4 to 1/2 mile radius but may serve a City-wide population for special programs.	From less than 1 acre to approximately 3 acres.	Within neighborhoods and in close proximity to apartment complexes, housing developments or housing for elderly.
Neighborhood Park	Area for intense recreational activities, such as field games, court games, crafts, playground apparatus area, picnicking, wading pools, etc.	1/2 to 1 mile radius.	Usually 5 to 10 acres.	Suited for intense development. Easily accessible to neighborhood population--geographically centered with safe walking and bike access.
Community Park	Area of diverse environmental quality. May include areas suited for intense recreational facilities, such as athletic complexes, large swimming pools. May be an area of natural quality for outdoor recreation, such as walking, viewing, sitting, picnicking, fishing. May be any combination of the above depending upon site suitability and community need.	Several neighborhoods. 1 to 2 mile radius but has features which serve a city-wide population.	Usually 15 to 25+ acres.	May include natural features, such as water bodies, and areas suited for intense development. Easily accessible to community served.

TABLE 27 (Cont.)

<u>Component</u>	<u>Use</u>	<u>Service Area</u>	<u>Size</u>	<u>Desirable Site Characteristics</u>
Regional Park	Regional parks provide significant natural features and outdoor recreational facilities such as picnicking, fishing, camping and hiking and unique programs that appeal to the recreational needs of people beyond the City boundary.	City-wide or larger.	50+ acres.	Some significant natural habitat and some features unique to the area.

TABLE 28

CITY PARKS AND RECREATION FACILITIES

L - LIGHTED
U - UNLIGHTED

LOCATION	TYPE	Facilities																						
		R - REGIONAL	C - COMMUNITY	N - NEIGHBORHOOD	S - SPECIAL FACILITY (BAULFIELD, (COMMUNITY CENTER, OPEN SPACE))	U - UNDEVELOPED	BALLFIELDS	BASKETBALL COURTS	CHILDREN'S PLAY AREA	COMMUNITY BUILDING	FOOTBALL FIELD	GYMNASIUM	HANDBALL	HORSESHOES	LAKE	PICNIC AREA	PICNIC SHELTERS	SHUFFLE BOARD	SOCCER FIELD	SPECIAL FACILITIES	SWIMMING	TENNIS COURTS	VOLLEYBALL COURTS	WADING POOL
AL GUHIN/VERDEMONT PARK 3650 LITTLE LEAGUE	1		N		28.0																			
BUCKBOARD PARK BUCKBOARD AND KENDALL	2		N		15.0																			
HUDSON PARK PARK DRIVE AND WINDSOR	3		N		10.1				•									•	•	•				
BLAIR PARK 1400 W. MARSHALL BLVD.	4		C		34.0	• 3L			•									•	•	•				
NEWBERRY PARK 550 HILL DRIVE	5		S		1.53																			
40TH STREET PARK 40TH AND ELECTRIC	6		S		.50				•										•					
NEWMARK FIELD (KARL KARPER) 39TH AND PERSHING	7		S		5.02	• 1L													•					
SIERRA PARK 3800 SIERRA WAY	8		S		1.13																			
WILDWOOD PARK 40TH AND WATERMAN	9		C		24.2	• 3L			•									•	•	•				
HORINE PARK 30TH AND WATERMAN	10		N		5.69				•									•	•					
HARRISON CANYON PARK 39TH AND GOLDEN	11		N		6.0		1U	•										•	•					
SONORA TOT LOT 3990 SONORA STREET	12		S		.17				•															
DEL VALLEJO/AQUINAS STERLING AND LYNWOOD	13		N		8.0	• 1L			•										•					
PATTON PARK/SPEICHER MEMORIAL PARK PACIFIC AND ARDEN	14		R		80.0	• 5L													•					
PERRIS HILL PARK 607 E. HIGHLAND	15		R		64.4	• 1L			•	•								•	•	•	•	•		
PALM FIELD 888 E 6TH STREET	16		S		22.3	• 1L																		
NORTH NORTON CENTER 24424 MONTEREY	17		S																					
CENTERS FOR INDIVIDUALS WITH DISABILITIES 8088 PALM LANE	18		S																•	•				
MILL CENTER 503 CENTRAL	19		C		14.3	• 1L			•	•	•	•	•	•	•	•	•	•	•	•	•	•		
CAMPO SANTO MEMORIAL PARK 27TH AND E STREET	20		S		5.0																			

**CITY PARKS
AND
RECREATION
FACILITIES**
(CONTINUED)

L - LIGHTED
U - UNLIGHTED

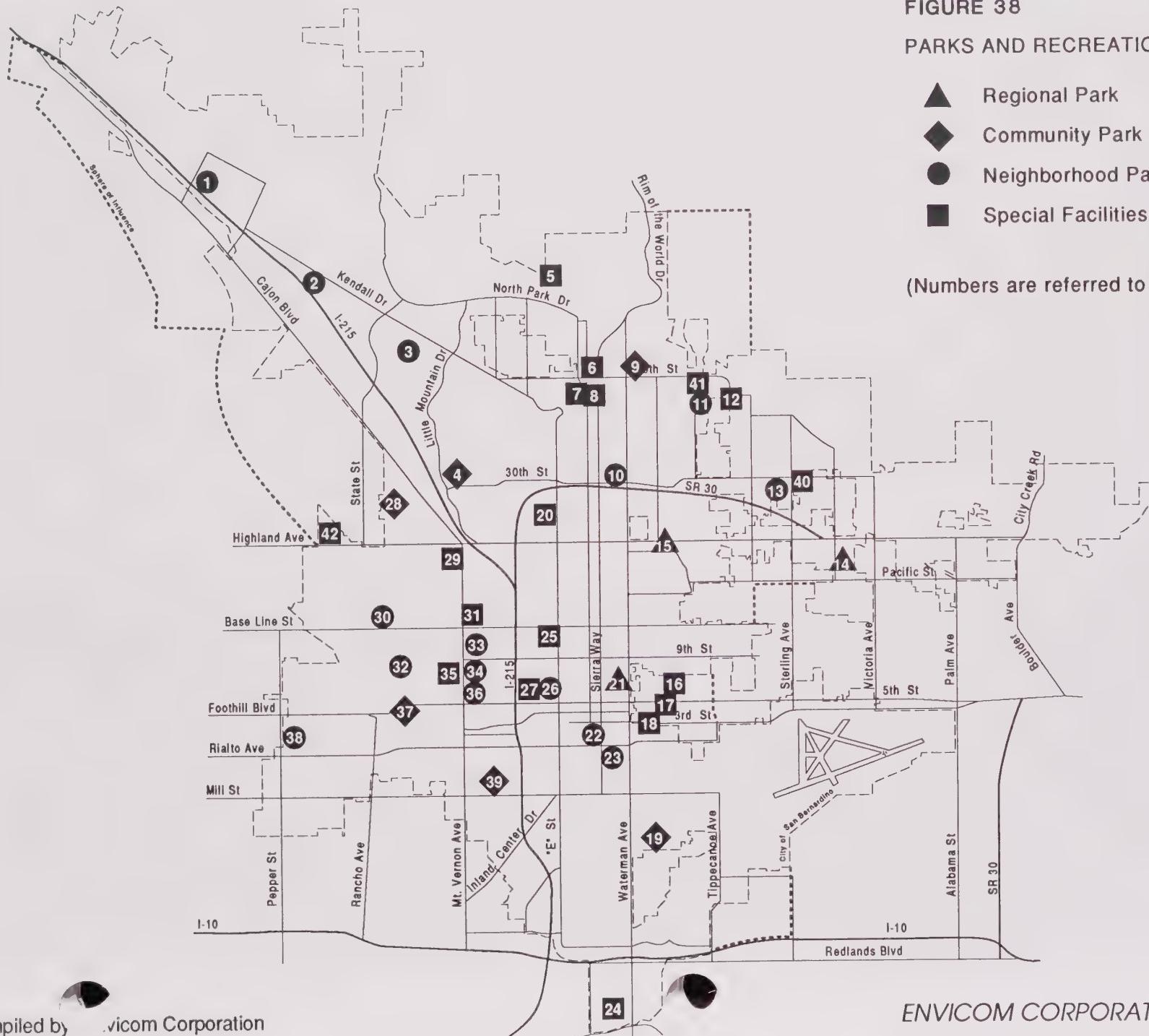
LOCATION	TYPE R - REGIONAL C - COMMUNITY N - NEIGHBORHOOD S - SPECIAL FACILITY (BALLFIELD, (COMMUNITY CENTER, OPEN SPACE) U - UNDEVELOPED	ACRES	BALLFIELDS	BASKETBALL COURTS	CHILDREN'S PLAY AREA	COMMUNITY BUILDING	FOOTBALL FIELD	GYMNASIUM	HANDBALL	HORSESHOES	LAKE	PICNIC AREA	PICNIC SHELTERS	SHUFFLE BOARD	SOCCER FIELD	SPECIAL FACILITIES	SWIMMING	TENNIS COURTS	VOLLEYBALL COURTS	WADING POOL
			• 2L	• • •	• • •	• •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •		
SECCOMBE LAKE PARK 5TH AND SIERRA WAY	21 R	62	• 2L	• • •	• • •	• •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •		
MEADOWBROOK PARK/HERNANDEZ CENTER 2ND AND SIERRA WAY	22 N	4.9																		
MEADOWBROOK FIELD HOUSE AND PARK RIALTO AND ALLEN	23 N	14.1	• 1L	• • •	• • •	• •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •		
COLONY PARK WEIR ROAD AND HERITAGE DRIVE	24 S	3.0	• 1L																	
CULTURAL CENTER 536 W 11TH STREET	25 S	1.36																		
PIONEER PARK 6TH AND E STREET	26 N	5																		
SENIOR CITIZEN SERVICE CENTER 600 W 5TH STREET	27 S	.5																		
DELMANN HEIGHTS COMMUNITY CENTER 2969 FLORES	28 C	19.0	• 1L	• • •	• • •	• •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •		
WESTSIDE DROP-IN CENTER 2002 N MT. VERNON	29 S																			
ANNE SHIRRELLS PARK CALIFORNIA AND BASELINE	30 N	6.8		• 2L	• •															
GUTIERREZ FIELD 14 TH AND MT. VERNON	31 S	1.9	• 1L	• •	• •															
JOHNSON HALL 906 WILSON	32 N	5.5	• 1U	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •		
ENCANTO PARK 1180 W 9TH STREET	33 N	8.9	• 2L	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •		
9TH STREET PARK 9TH AND GARNER	34 N	3.6																		
GUADALUPE FIELD 8TH AND ROBARDS	35 S	2.25	•																	
LA PLAZA PARK 7TH AND MT VERNON	36 N	2.04																		
NUNEZ PARK 1717 W 5TH STREET	37 C	22.0	• 3L	• • •	• • •	• •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •		
NICHOLSON PARK 2737 W 2ND STREET	38 N	9.5	• 2L	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •		
LYTLE CREEK PARK 380 S K STREET	39 C	17.9	• 1L	• • •	• • •	• •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •		
PROPOSED PARK MIRADA ROAD AND ORANGE STREET	40 U																			
PARK/STRIP GREENBELT STERLING AND GREENWOOD	41 S																			
HAMPSHIRE GREENBELT HAMPSHIRE AVENUE AND 40TH STREET	42 S	5.8																		
SAN ANSELMO TOT LOT MESA AND SAN ANSELMO	43 S	.23																		

FIGURE 38

PARKS AND RECREATION FACILITIES

- ▲ Regional Park
- ◆ Community Park
- Neighborhood Park
- Special Facilities

(Numbers are referred to in Table 48)



In addition to City parks, there are individual regional facilities such as the Shandin Hills Golf Course which is a professional class, eighteen-hole course. This public course is owned by the City and leased to a private company for operation and maintenance. The City also has a professional class baseball field located in Perris Hill Park, used by a professional Single A baseball team.

The planning area contains the Western Regional Little League Headquarters and stadium on land owned by the City. However, the facility is owned by a nonprofit group and is used almost exclusively for Little League ball play. In the agreement for the usage of the land, the City retains some rights for its usage when not used by the Regional Little League program.

Park facilities are maintained to meet the needs of special groups, including senior citizens, disabled people, cultural activities, memorial parks, community center activities, children's play lots, and open space/greenbelt areas. In addition, there are open space land dedications which do not lend themselves to active recreational use and are left in their natural state, maintained under assessment districts by private contractors.

The City provides recreational services at the local schools, under a joint resolution adopted by the City Council and the school district. It provides that school yard facilities will remain open in the daytime hours after school for recreational use of the community.

The City Parks, Recreation, and Community Services Department operates a variety of recreational programs on school grounds, including the Tiny Tot program, Senior Citizen leisure programs, and active and passive programs for all age groups including after school activities during the regular school year. For the use of school building facilities and pools, the City pays rental fees. The school district reserves the right for first priority for the use of all school areas.

In addition to those mentioned above, the City has a lighted softball field at Richardson School and tennis courts and a lighted ball field at Golden Valley School. All school sites are eligible for City operated recreation programs. These programs change from season to season and are reestablished each year between the school district and the City. The programs use as many as twelve school sites in the summer season and about four in the winter season. The programs range from structured classes to a day care center under a Federal Latchkey grant. Because school sites have a designated priority by the San Bernardino school district for school purposes, they cannot be available for unrestricted access and have not been available for casual use on weekends when the City programs are not available. The limitations on the use of school sites make them a good supplement but not a replacement for local parks that are also available in the evening hours and on weekends.

School closures have resulted in additional areas being developed as parks. For example, the City purchased and developed the former Mitchell School grounds for use as a City park and recreational facility, now known as Harrison Canyon Park. Del Vallejo

Junior High School athletic fields have been developed for youth baseball, football and soccer use as well as for use by the general public.

The City provides social services through the community centers. These include a Drop-in Center and a contracted service center which provide informational and referral services for a variety of citizen needs such as employment opportunities, Social Security services and forms, income tax forms, illiteracy training, emergency food and shelter programs, and so on. There is also a summer lunch program for school age children and a Headstart, preschool program. A Senior nutrition program, senior companion and retired senior volunteer program are also provided for senior citizens.

In addition to City facilities, the County Regional Parks system includes Glen Helen, Yucaipa, Lake Gregory, Cucamonga, Guasti, Prado, and Mojave Narrows, all within a range of approximately 10-40 miles of the City of San Bernardino. The nearest to the City is Glen Helen Park, which provides a multi-faceted recreation area for fishing, boating, picnicking and other activities for many City dwellers.

B. PARKLAND ACQUISITION AND DEVELOPMENT STANDARDS

The City uses the State Quimby Act, as amended, the City Municipal Code for fees and land dedications, and the City Capital Improvement Program to establish standards and schedules for acquisition and development of new park or rehabilitation of existing parks and recreation facilities.

The Quimby Act, as amended, allows the City to require, by ordinance, dedication of land or impose payment of fees in lieu thereof, or a combination of both for neighborhood and community parks and recreation purposes. The act provides that the ordinance must set definite standards for dedication of land and the amount of any fee to be paid in lieu thereof.

The City Municipal Code (Chapter 15.56) provides for the payment of a fee for each new residential dwelling unit constructed and each mobile home space improved. The fee is placed in a specially designated fund and is used for acquisition and development of new or improvement of existing neighborhood and community parks and recreational facilities.

The fee imposed is based on the type of construction and a percentage of its valuation, as determined by the building permit. Fees are imposed when the building permit is issued.

The ordinance provides that in lieu of fees, the Mayor and Common Council may grant credit for land and improvements which are dedicated in fee to public recreation and park purposes. The amount of dedicated land and any conditions are determined by mutual agreement between the City and the dedicator.

The Quimby Act sets standards for parkland dedication of three acres per 1,000 population unless the City has already established a higher rate, in which case it sets the acreage at five per 1,000 population. These are not based on the various park classification (neighborhood, community, regional) as are the national standards, but on total population and total park acreage. The City standard for five acres per 1,000 population was established based on the population and park ratios in 1980.

National standards for local parks have been established by the National Recreation and Park Association. These define acceptable ratios of per capita park space for local parkland including a proportion of neighborhood and mini-parks based on national averages. Regional parks, because of their variation in size and type, have not been included. The standard for local parks is 5 to 8 acres of total parkland per 1,000 population. The standard for the neighborhood park portion is 1-2 acres per 1,000 population and for mini-parks 0.25-0.50 per 1,000 population.

The City of San Bernardino currently provides 3.7 acres of local parks per 1,000 population. This is a shortfall of 455 acres for local parks. The shortfall is lessened somewhat by the fact that the three regional parks have active recreation facilities, many school sites in the City are available for periods of time for recreational activities and are counted as park space, and the presence of year-round passive and active recreation opportunities in the nearby San Bernardino National Forest.

There are only two mini-parks in the City totaling .4 of an acre. According to the national standard, the City should have 35 acres of mini-parks. However, the need for mini-parks is usually more applicable to dense urban centers.

<u>Local Park Type</u>	<u>Existing City Ratio</u>	<u>Planning Area</u>	<u>National Standard/City Standard</u>
All Parks	3.7 acre/1,000	2.0 acre/1,000	5 acre/1,000
Neighborhood Parks	.9 acre/1,000	.52 acre/1,000	1 acre/1,000

Acquisition of parklands is provided for through the City's Capital Improvement Program. Acquisition funding is limited and must compete with funding needed for ongoing maintenance of existing facilities and equipment as well as with other City needs. In addition to City funds, Federal and State grant programs provide funds for the purchase of new parkland. There have been State bond acts for acquisition and development purposes in 1974, 1976, 1980, 1984, and 1986. The City has received approximately \$2.7 million through these and other State and Federal programs during the past 10-12 years. It is probable that other state programs will continue to provide funding to the City for future acquisition and development purposes, as resources are available.

ISSUES

Significant issues associated with the parks and recreation facilities and programs in the planning area include:

- A. There is a deficiency of parkland for existing residents based on current standards. The deficiency is greatest for the small parks at the neighborhood and mini-park level. This deficiency is offset in part by the joint use of school facilities, the abundance of nearby County Regional Parks, and the adjacency of year-round resort facilities in the San Bernardino Mountains.
- B. Parkland in-lieu fees are intended to be spent to provide park space to serve the population in the subdivisions from which they are collected. This can be done by developing new or rehabilitating existing park and recreational facilities. The in-lieu fees for parkland must be used within five years after payment of the fees or issuance of building permits on one-half of the lots created by the subdivision, whichever occurs later.
- C. As development continues, it will be necessary to expand the park and recreation system and pre-select future park sites so that park and recreation services can be provided at the time of development.
- D. It is probable that Quimby fund and general revenue to the City will be insufficient to acquire, develop, maintain, and operate recreational programs at new park sites to meet anticipated demands. Other funding sources such as State and Federal grants and public-private joint endeavors will have to be identified.
- E. As the planning area's open spaces are reduced by new development, there will be significantly increased demands to set aside lands for recreational purposes.
- F. Construction of buildings on lands that have been designated as Biological Resource Management Area (BRM), will require full environmental review and discretionary control prior to any development plan approvals on such space.
- G. There are significant opportunities to use non-developable open spaces for recreational uses. For instance the Cajon-Lytle Creek washes, Santa Ana River, and various flood control areas such as at Wildwood Park could provide usable space for recreational purposes.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for parks and recreation in the City of San Bernardino. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "I" and a number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 9A Improve the quality of life in San Bernardino by providing parks and recreation services to the City's residents.

Objective

It shall be the objective of the City of San Bernardino to:

- 9.1 Provide park facilities to meet the needs of existing and future residents, including 455 acres to offset the current deficit and an additional 352 acres for projected population growth.

Policies

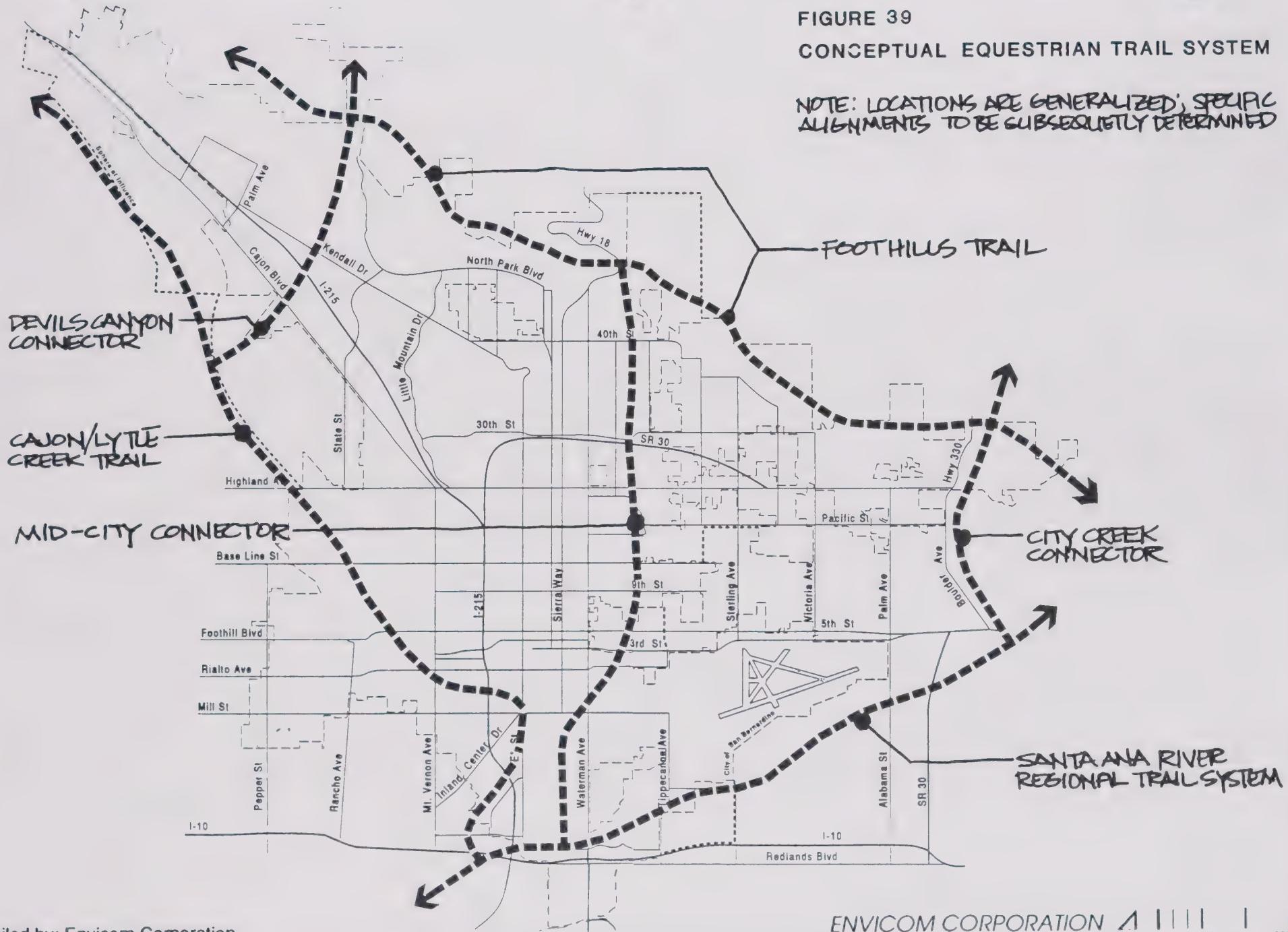
It shall be the policy of the City of San Bernardino to:

- 9.1.1 Establish the following as initial standards for park development, which may be modified by a parks master plan:
- a. Mini-Park: 1/2 to 3 acres
 - b. Neighborhood Park: 5 to 10 acres, with 1/2 to 1 mile of its users
 - c. Community Park: 15 to 25 acres, within 1 to 2 miles of its users
 - d. Regional Park: 50 acres and greater (I9.1)
- 9.1.2 Establish a comprehensive parks master plan for the City, defining existing and anticipated recreational needs (based on population size, density, and demographics), locations for new or expanded facilities, timing of development, and funding sources (I9.2).
- 9.1.3 Disperse park facilities and equipment throughout the City, to prevent an undue concentration at any location; including sports fields, basketball courts, tennis courts, swimming pools, picnic areas, and other facilities (I9.1).

- 9.1.4 Provide a variety of park "experiences", including those developed for intense recreational activity, passive open space enjoyment, and a mixture of active and passive activities (I9.1 and I9.1).
- 9.1.5 Establish as the first priority for improvements areas with neighborhood park shortages containing less than five acres of parkland per 1,000 population or areas where parks are located more than one half a mile from the residential neighborhoods; including, but not limited to, the following:
- a. The east side of the City: East of Sierra Way and north of Mill Street, excluding areas within a one-half mile radius of Perris and Patton Parks.
 - b. Northwest City: North of Highland Avenue and Route 18, and west of Sierra Way, excluding areas within one-half mile radius of Hudson, Blair, Guhin, and or other parks (I9.7).
- 9.1.6 Pursue the acquisition of surplus federal, state, and local lands to meet present and future recreation and community service needs (I9.15).
- 9.1.7 Pursue the development of portions of the Santa Ana River, Lytle Creek, and flood control drainages and detention basins for recreational uses which will not inhibit flood control purposes or be adversely impacted by flooding (I9.16).
- 9.1.8 Establish a recreational greenbelt system linking the river and drainage corridors with the mountains (I9.1 and I9.16).
- 9.1.9 Establish an equestrian trail system along the foothills of the San Bernardino Mountains, Santa Ana River, Cajon and Lytle Creeks, and interconnecting linkages (as conceptually depicted in Figure 39) in collaboration with the U.S. Forest Service, County of San Bernardino, City of Highland, and other adjacent communities (I9.1).
- 9.1.10 Examine the potential use of geothermal resources for recreational use (e.g., pools) (I9.17).
- 9.1.11 Acquire and develop properties as mini-parks where it is not possible to acquire sufficient acreage for neighborhood parks (I9.1, I9.2)
- 9.1.12 Require that new parklands (minimum of two acres) be dedicated as a part of new residential subdivisions, unless it is the objective of the City to develop a park to serve the subdivision at an alternative location specified by the Parks Master Plan, wherein in-lieu fees shall be provided (I9.3, I9.4, and I9.19).

FIGURE 39
CONCEPTUAL EQUESTRIAN TRAIL SYSTEM

NOTE: LOCATIONS ARE GENERALIZED; SPECIFIC ALIGNMENTS TO BE SUBSEQUENTLY DETERMINED



- 9.1.13 Require that new multi-family residential development five units or more provide recreational or open space facilities on-site and contribute fees to the public development of additional facilities to offset additional demands generated by its resident population (I9.3, I9.4, and I9.19).
- 9.1.14 Require that new commercial development provide open space facilities on-site for passive or active recreation or contribute fees for the public development of such uses (I9.5).

Objective

It shall be the objective of the City of San Bernardino to:

- 9.2 Provide adequate funding for parkland acquisition, improvements, and programs.

Policies

It shall be the policy of the City of San Bernardino to:

- 9.2.1 Continue to require developers of residential subdivisions to provide fee contributions based on the valuation of the units to fund parkland acquisition and improvements (I9.3 and I9.19).
- 9.2.2 Fund new neighborhood parks from Quimby fees in residential areas of the City (I9.3 and I9.19).
- 9.2.3 Grant Quimby fee waivers only when parklands in excess of five contiguous and usable acres are received and when such waivers are determined to be in the best interest of City residents as certified by the Mayor and Common Council on recommendation of the Parks and Recreation Department (I9.3 and I9, I9).
- 9.2.4 Continue and expand mechanisms by which the City may accept gifts and dedications of parks, open space and facilities (I9.21).
- 9.2.5 Consider the use of special taxes, sale of bonds, or assessment districts for park development and maintenance (I9.23).
- 9.2.6 Solicit funding for parkland acquisition, improvement, maintenance, and programming from state and federal agencies, as available (I9.20).
- 9.2.7 Encourage local individuals and groups to contribute or plant trees (in accordance with a prescribed tree planting plan) in neighborhood and community parks (I9.22).

Objective

It shall be the objective of the City of San Bernardino to:

- 9.3 Ensure that parks are improved to optimize recreational and open space opportunities and compatible with adjacent land uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 9.3.1 Develop master plans for each park to ensure that (a) the siting of buildings, open air facilities, and landscape are unified, functionally related to efficiency, and compatible with adjacent uses; and (b) landscape locations and species are coordinated with architectural and site design (I9.2).
- 9.3.2 Design and develop parks to complement and reflect their natural environmental setting and maximize their open space character (I9.2 and I9.14).
- 9.3.3 Design and improve community and neighborhood parks according to the following:
- a. locate on collector or neighborhood streets, accessible to adjacent residential neighborhoods;
 - b. site uses so that they do not adversely impact adjacent residences (e.g., locating high activity, noise-generating, and nighttime uses away from residences);
 - c. provide for parking so that it does not disrupt abutting residences; and
 - d. incorporate landscape which "fits" with adjacent areas (I9.2 and I9.6)
- 9.3.4 Design and improve mini-parks according to the following:
- a. develop at a sufficient size and design to be compatible with adjacent uses, avoiding small "internal" sites which disrupt the residential neighborhoods;
 - b. locate on street corners and cul-de-sacs, where possible;
 - c. to meet the particular needs of residents of the area they serve (i.e., senior citizens, and families with children); and

- d. design to prevent impacts on adjacent residences (I9.1, I9.15, I9.17, and I9.20).
- 9.3.5 Monitor, review and assess design, landscape development, and maintenance of parks, ensuring that quality standards are met commensurate with intended park and facility function (I9.9 and I9.10).
- 9.3.6 Install new and replace existing landscaping where it is severely deteriorated, inappropriately located for park activities, and incompatible with other landscape and adjacent uses (I9.9, I9.10, and I9.22).
- 9.3.7 Ensure that all parks are adequately illuminated for safe use at night (I9.2, I9.5, and I9.10).
- 9.3.8 Provide for the supervision of park activities and promote enforcement of codes restricting illegal activity (I9.5 and I9.18).
- 9.3.9 Design park facilities to discourage illicit and illegal activities (I9.2, I9.6 and I9.18).
- 9.3.10 Restrict and control nighttime park use so that adjacent residences are not adversely affected (I9.6 and I9.18).

Goal

It shall be the goal of the City of San Bernardino to:

- 9B Develop programs and facilities that enhance social interaction and provide recreational opportunities for City residents to improve physical, mental, and emotional well-being and social behavior.

Objective

It shall be the objective of the City of San Bernardino to:

- 9.4 Provide a diversity of programs, services and facilities for the City's residents.

Policies

It shall be the policy of the City of San Bernardino to:

- 9.4.1 Provide recreational programs which meet the needs of all City residents (I9.1, I9.2, I9.8 and I9.10)

- 9.4.2 Accommodate the recreational needs of the City's residents reflecting their unique social, cultural, ethnic, and physical limitations in the design and programming of recreational spaces and facilities (I9.2, I9.8, and I9.10).
- 9.4.3 Continue to monitor the community's recreational needs and evaluate the adequacy of the City's recreational facilities and programs in meeting these; conducting a comprehensive evaluation at least once each five years (I9.8 and I9.10).
- 9.4.4 Centralize recreational program development, including identifying new funding sources and recreation program advocacy, under the Director of Parks, Recreation, and Community Services (I9.11).
- 9.4.5 Inform the City residents of recreational programs through the cable television, newsletters, and other publications (I9.13).
- 9.4.6 Obtain the latest information regarding recreational programs and funding (I9.2 and I9.20).
- 9.4.7 Continue to provide financial support, including user fees and in-lieu fees, for summer lunch, playground, swimming pool programs and recreational facilities, and other appropriate programs (I9.19-I9.23).
- 9.4.8 Solicit state, federal, and other agency revenue to fund recreational programs, as it is available (I9.20).

Objective

It shall be the objective of the City of San Bernardino to:

- 9.5 Coordinate the City's recreational programs with other agencies and organizations that which provide service to the San Bernardino planning area.

Policies

It shall be the policy of the City of San Bernardino to:

- 9.5.1 Initiate and attend joint meetings with the Forest Service, County Parks and Recreation Department, Norton Air Force Base, and the state to coordinate the joint use of recreational facilities, and park land acquisition, and establish new recreational programs (I9.14, I9.16, and I9.17).

9.5.2

Maintain and expand cooperative arrangements with the San Bernardino Unified School District, City Municipal Water Department, Cal State San Bernardino and San Bernardino Valley College for after hour and summertime use of parks, pools, concert halls, and other facilities (I9.12).

IMPLEMENTATION

The following lists the programs to implement the parks and recreation policies contained in the preceding sub-section of the Plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

Plans and Ordinances

- I9.1 Prepare a comprehensive master plan of parks which should include:
- a. current and projected recreational needs;
 - b. development and design standards (ratio of acreage to population, types, size, location, characteristics, relationship to adjacent properties, facility layout, landscape, etc.);
 - c. park improvements
 - existing sites to be improved or expanded
 - "target" locations for acquisition for future parks specified by type (mini, neighborhood, community, and regional)
 - function, facilities, and programs to be provided at each site
 - d. timing and phasing;
 - e. acquisition and improvement costs and funding sources; and
 - f. priorities for implementation.
- This plan shall encompass all park and recreational elements including mini, neighborhood, community, and regional parks, river/drainage corridor recreation, and equestrian trails, "greenbelt" linkages to the mountains. The master plan shall be initiated by the City and incorporate extensive public input.
- I9.2 The City shall prepare master plans for each park and recreation open space element (e.g., "greenbelt"). These shall indicate locations of outdoor and indoor facilities (athletic fields, basketball courts, tennis courts, swimming pools, buildings, maintenance areas, etc), picnic facilities, passive recreation, nature appreciation/education, public parking, and other constituent elements. Landscape and irrigation plans and measures to "transition" the park with adjacent land uses will be incorporated in the plan. The design of each park shall reflect and be sensitive to the natural characteristics of the site, including topography, drainage,, vegetation, and envi-

ronmental habitat. For existing parks, the need to resite existing facilities to increase their efficiency, maintain open space resources, and provide compatibility with adjacent uses shall be analyzed. For new facilities, park master plans shall be prepared prior to the implementation of improvements. Local community groups shall be involved in the preparation of each plan.

- I9.3 Maintain Development Code requirements that proposed residential developments include land for public parks and recreational facilities at a ratio of five acres for each 1,000 persons. The Director of Parks and Recreation and the Parks and Recreation Commission shall review all proposed residential projects with five units or more.
- I9.4 Require that all residential development projects of five or more units provide on-site open space facilities and pay in-lieu fees for similar facilities nearby or dedicate parklands in accordance with standards to be established in the Development Code.
- I9.5 Require that all non-residential development provide on-site open space facilities or pay in-lieu fees in accordance with standards to be included in the Development Code.
- I9.6 Establish standards for a defensible space ordinance for park development (i.e., physical design characteristics that minimize criminal activity) and coordinate with the Police Department to ensure design review of park development plans.

Administrative

- I9.7 Maintain base data and conduct studies as appropriate, to determine which neighborhoods have the lowest acres-to-people ratio and establish them as near term priorities to acquire and develop parks to relieve the shortage. If neighborhoods parks are not feasible, acquire and develop mini-parks.
- I9.8 The Parks and Recreation Department shall maintain information regarding park facilities, and programs and community needs to determine if recreational needs are being met by the facilities and programs. Needs surveys shall be conducted at least every five years. The results of the survey should be reported to the Parks and Recreation Department Director and the Parks Commission. Public review and comment shall be encouraged.
- I9.9 Standards for parks and landscape material, equipment and furnishing shall be reviewed periodically, but no less often than once each five years.

- I9.10 No less than once every five years, review the physical and operational characteristics of parks, the site design, landscape development, maintenance of parks, recreational buildings and community facilities. This evaluation should consider their effectiveness and efficiency in accommodating recreational activities, costs of operation and maintenance, rate of deterioration and replacement of equipment and landscape, safety of users and tenants of adjacent properties, adequacy of lighting, compatibility with adjacent uses and other pertinent measures.
- I9.11 Study the need for establishing a new position in the Parks and Recreation Department responsible for facilities development. Specific duties will include monitoring ongoing funding programs such as the Quimby fees, identifying and applying for new funding (e.g., corporations, private citizens, foundations, special park and recreation assessments from redevelopment agencies) and advocating new programs. Annual reports will be conducted to determine the effectiveness of program development.
- I9.12 Continue to work with the local colleges and the San Bernardino City Unified School District to provide local community residents access to swimming pools, college gyms, tracks, concert halls, and other recreational facilities and maintain program for the public use.
- I9.13 Continue to inform citizens of available recreational programs which may be accomplished by newsletters or other media.
- I9.14 Conduct annual or semi-annual meetings with the United States Forest Service, San Bernardino County Parks and Recreation Department, Norton Air Force Base, and State representatives to maintain and establish new recreational programs, provide for the joint use of facilities, and facilitate park land acquisition.
- I9.15 Maintain an inventory of surplus federal, state, and local land in the City and, as funding is available, purchase and acquire those which are appropriate for recreational purposes. When purchase is not possible, consider the negotiation of long-term lease agreements to provide park and recreational facilities.
- I9.16 Work with United States Army Corps of Engineers, County Flood Control and the City's Public Works Department to provide for the recreational use of the Santa Ana River, Cajon Creek, Lytle Creek, canyon drainages, and/or storm water detention channels. These should provide for low intensity use, such as hiking and equestrian trails, nature observation, and picnicking. Other more intensive uses, such as golf courses and athletic fields, shall be considered for the appropriateness according to public safety and environmental habitat preservation. Recreational uses in these areas shall be designed to provide for flood control needs as their primary

purpose and be capable for easy restoration subsequent to drainage and floods.

- I9.17 Work with the San Bernardino Municipal Water Department to explore the opportunities and feasibility of the use of geothermal resources for public recreational use (e.g., pools and spas).
- I9.18 Coordinate with the City of San Bernardino Police Department the monitoring and patrol of parks to inhibit crime and illegal activity. Annually, the crime rates within and adjacent to parks shall be compiled. Where problems exist, the Parks and Recreation Department shall consult with the Police Department to determine strategies to reduce criminal activity. Such may include modification of recreational activities (types or hours of use), redesign of site layout and facilities to enhance visibility and "defensible" space, increased community surveillance, and/or increased patrols.

Funding

- I9.19 The City shall maintain the use of the Quimby Act, in-lieu fees, and developer contributions as a primary means of parks and recreation funding. At least once each three years, the City shall review the sufficiency of the fees to support parkland acquisition, improvements, and programming. As necessary, these shall be adjusted within the limits of impact fees established by law. Fees shall be imposed on commercial development to the extent that direct impacts can be defined or as a condition of density or use "bonuses".
- I9.20 The City shall monitor the availability of state and federal monies for recreational purposes. As funds are available the City shall actively solicit its share of these funds.
- I9.21 As an incentive for obtaining additional funding for park improvements, continue and expand mechanisms for receiving tax deductible contributions, which may include the donation of equipment and facilities.
- I9.22 Facilitate additional tree planting in local parks, by incorporating tree purchases in the maintenance budget.
- I9.23 Establish the administrative and legal mechanisms to allow for the creation of benefit assessment districts and special taxes to fund park acquisitions and improvements.

CHAPTER THREE

ENVIRONMENTAL RESOURCES



10.0 NATURAL RESOURCES

A. BIOLOGICAL RESOURCES

INTRODUCTION AND STATUTORY REQUIREMENTS

California State law requires the preparation of two elements which address the management of the Planning Area's biological resources: the Conservation and Open Space Elements. Government Code Section 65302(d) requires

"a conservation element for the conservation, development, and utilization of natural resources including ... fisheries, wildlife, ... and other natural resources."

Government Code Section 65560 requires that the Open Space Element define policy for

"Open space for the preservation of natural resources..."

BACKGROUND DATA AND ANALYSES

Once great numbers of mammoths and mastadons, native American horses and camels, bison, sloths, dire wolves, and sabre-toothed cats existed in the region, along with many species that survive today. The disappearance of this fauna is associated with increased aridity starting around 8,000 years ago, and was perhaps exacerbated by concentrated hunting efforts of the early postglacial inhabitants. By their selective hunting and practice of burning the landscape, the native people affected significant changes in the flora and fauna.

With the Spanish in the late eighteenth century came the first introductions of non-native plants and animals. Under a regime of intensive livestock grazing and frequent drought, changes in the flora and fauna were further accelerated.

Around 1846 came a phenomenal growth of agriculture in the valley. Such demands were placed on water that by 1860, the once perennial flow of the Santa Ana River had become intermittent. Most of the trees were removed for timber or firewood or they died as the water table lowered. The discovery of placer gold in Holcomb Valley brought a great influx of people into the region. By 1886, the San Bernardino Valley became connected to the east by two transcontinental railways, resulting in a further influx of people. The subsequent building boom accelerated the lumbering industry in the nearby mountains.

The equitable climate of the San Bernardino Valley, together with the now rapid urbanization occurring in Los Angeles County, fostered the development of the valley as the principal agricultural area of the county. World War II brought heavy industry to the valley, a big increase in population and urbanization, and a consequent decline in agriculture. This trend continues to the present day, and now few vestiges of the natural

landscape remain in mountainous terrain or flood-prone areas of the valley floor. The result has been a virtual replacement of the native flora and fauna by a biologically-depleted urban environment.

EXISTING BIOLOGICAL ENVIRONMENT

The biological conditions in the City, and in fact throughout the region represent one which is highly modified from a pristine environment, although some portions of the City still retain significant biological resource value.

Much of the valley and upland areas have undergone extensive disturbance by agricultural and urban land uses, and therefore, support a decreased diversity of plant and animal life. Upland areas which remain undisturbed or which have not been disturbed for some time support inland coastal sagebrush scrub vegetation which generally supports a fauna typical of such habitats in southern California. This diversity is somewhat lessened in areas which are small and fragmented; however, adjacent "urban woodlands" and windrows tend to augment this diversity.

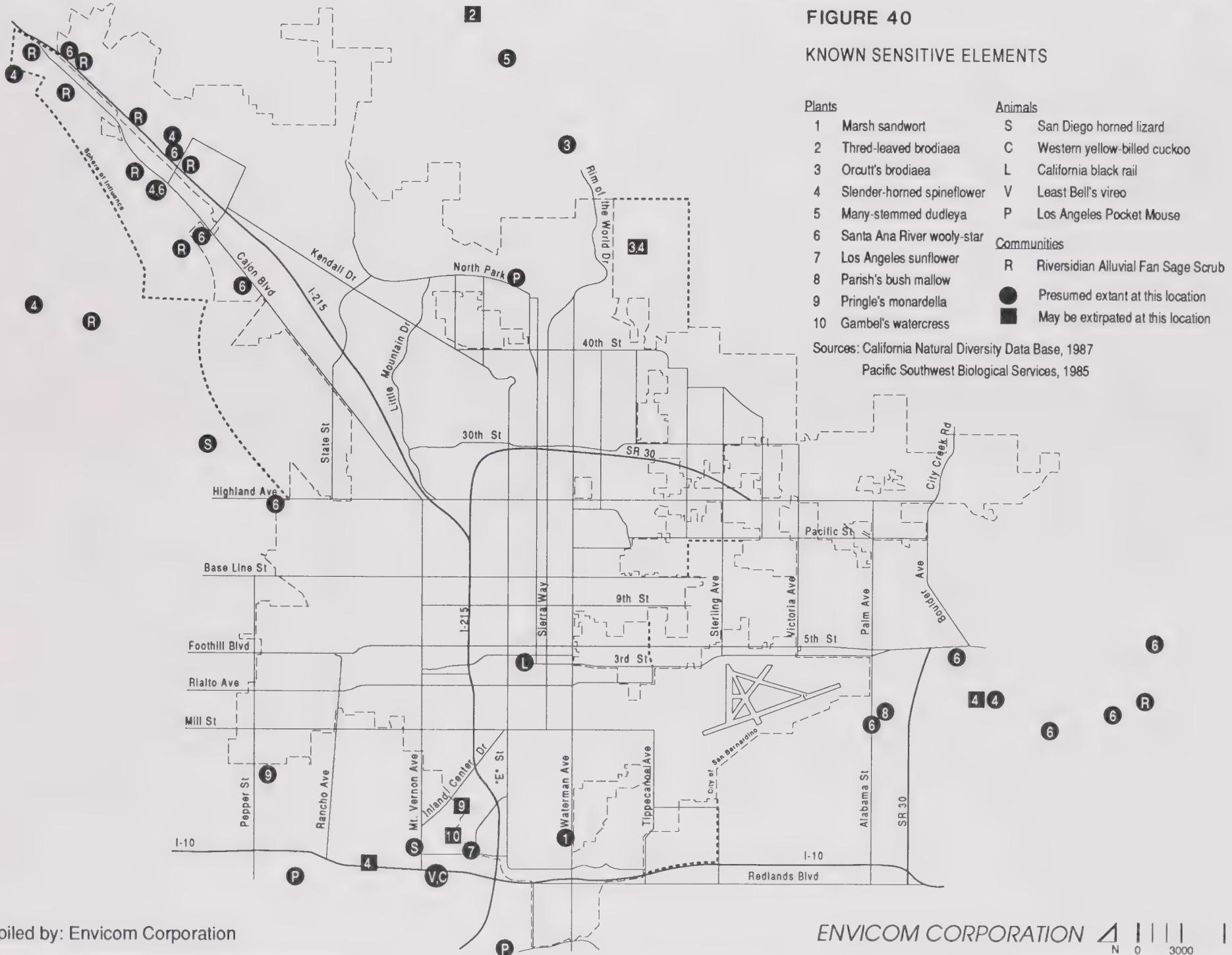
Alluvial fans and floodplains of the valley floor support a distinctive scrub vegetation containing an assortment of shrubs characteristic of both coastal sagebrush and chaparral communities. Such areas are high quality habitat for a variety of wildlife and in addition, these areas support the only known occurrences of two plant species which have recently been declared federally endangered.

Above the valley floor and uplands are deep canyons which support riparian and oak woodland habitats. Woodlands provide a high quality habitat for a diverse assemblage of wildlife species. Large mammals such as coyote, bobcat, deer, and occasionally mountain lion and bear descend from the mountains along these canyon corridors.

Broad canyons and mountain slopes support mainly chaparral and woodland vegetation whose relatively undisturbed nature, together with their contiguity with similar large areas of the San Bernardino National Forest, enhances the viability of these mountain areas as wildlife habitat.

BIOLOGICAL SENSITIVITIES

Certain plant and animal species, and sometimes whole communities of these may be considered to be sensitive for reason or combination of reasons related to rarity, limited availability, unusual characteristics, prime condition, and pending threats. In some instances, the threat to these species, or their habitats warrants official state or federal rare, threatened, or endangered status. The California Natural Diversity Data Base (CNDDDB) reports the occurrence of a number of sensitive biological elements within, and in the vicinity of the planning area. Each of these is listed below. Figure 40 depicts the locations of the known elements on a map of the planning area. More detailed discussion of status and locations for these species can be found in the Technical Background Report.



1. Communities

- Riversidian Alluvial Fan Sage Scrub (CNDDDB Element Code 32720).

In addition, the following “high inventory priority” habitat types may also occur within the planning area:

- Valley Needlegrass Grassland (Element Code 42110).
- Wildflower Field (42300).
- Freshwater Seep (45400).
- Southern Coast Live Oak Riparian Forest (61310).
- Southern Cottonwood-Willow Riparian Forest (61330).
- White Alder Riparian Forest (61510).
- Southern Sycamore-Alder Riparian Woodland (62400).
- Southern Willow Scrub (63320).
- California Walnut Woodland (71210).

2. Plants

- Santa Ana River Wooly Star (*Eriastrum densifolium sanctorum*) (Status*: FE, CE).
- Slender-horned Centrostegia (*Centrostegia leptoceras*) (CE, FE).
- Parish's bush mallow (*Malacothamnus parishii*) (F2).
- Thread-leaved Brodiaea (*Brodiaea filifolia*) (CE, F2).
- Orcutt's Brodiaea (*Brodiaea ocrutti*) (F2).
- Many-stemmed Dudleya (*Dudleya multicaulis*) (F2).
- Marsh Sandwort (*Arenaria paludicola*) (F2).
- Los Angeles Sunflower (*Helianthus nuttallii parishii*) (F1).
- Pringle's Monardella (*Monardella pringlei*) (F1).
- Gambel's watercress (*Nasturtium gambellii*) (F2).

The following plant species are reported just outside the mapped area and might also be expected in the planning area:

- Hall's monardella (*Monardella macrantha hallii*) (F2).
- Payson's caulanthus (*Caulanthus simulans*) (F2).

* Status Codes:

CE	California Endangered
CT	California Threatened
CP	Fully Protected in California
CSC	CDFG Species of Special Concern
SA	CDFG Special Animal
FE	Federally Endangered
F1	Federal Candidate Species Category 1
F2	Federal Candidate Species Category 2
S	USFWS Sensitive Bird Species, Region I

- Nevin's barberry (*Mahonia nevinii*) (CE).
- California bedstraw (*Galium californica primus*) (F2).

3. Fishes

- Santa Ana Sucker (*Catostomus santaanae*) (CSC).
- Pacific Speckled Dace (*Rhinichthys osculus carringtoni*) (CSC).

4. Reptiles and Amphibians

- San Diego Coast Horned Lizard (*Phrynosoma coronatum blainvilliei*) (F2).

The following species is reported just outside the mapped area and might also be expected in the planning area:

- Orange-throated whiptail (*Cnemidophorus hyperythrus*) (F2).

The following species are reported from the Santa Ana River in Orange County and might also be expected in the planning area:

- Western Pond Turtle (*Clemmys marmorata*) (F2).
- Silvery Legless Lizard (*Aniella pulchra*) (locally uncommon).

Still other species may be expected based upon distribution and habitat preferences:

- San Bernardino Mountain Kingsnake (*Lampropeltis zonata parvirubra*) (SA).
- Two-striped Garter Snake (*Thamnophis couchi hammondi*) (Locally uncommon).
- Arroyo Toad (*Bufo microscaphus californicus*) (F2).
- Red-legged Frog (*Rana aurora draytoni*) (F2).

5. Birds

- Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*) (F2).
- California Black Rail (*Lateralis jamaicensis coturniculus*) (F2, CT).
- California Black-tailed Gnatcatcher (*Polioptila melanura californica*) (F2).
- Least Bell's Vireo (*Vireo bellii pusillus*) (FE, CE).

The following species are reported from the Santa Ana River in Orange County and might also be expected in the planning area:

- Great Blue Heron (*Ardea herodias*) (SA).
- Least Bittern (*Ixobrychus exilis*) (CSC).
- Snowy Egret (*Egretta thula*) (SA).
- Black-crowned Night-heron (*Nycticorax nycticorax*) (SA).
- Wood Duck (*Aix sponsa*) (SA).
- Cooper's Hawk (*Accipiter cooperi*) (CSC).

- Sharp-shinned Hawk (*Accipiter striatus*) (CSC).
- Golden Eagle (*Aquila chrysaetos*) (CP, CSC).
- Swainson's Hawk (*Buteo swainsoni*) (CT, F2).
- Northern Harrier (*Circus cyaneus*) (CSC).
- Black-shouldered Kit (*Elanus caerulea*) (CP).
- Prairie Falcon (*Falco mexicanus*) (CSC).
- Peregrine Falcon (*Falco peregrinus anatum*) (CE, CP, FE).
- Osprey (*Pandion haliaetus*) (CSC).
- Short-eared Owl (*Asio flammeus*) (CSC).
- Long-eared Owl (*Asio otus*) (CSC).
- Tricolored Blackbird (*Agelaius tricolor*) (F2).
- Cactus Wren (*Campylorhynchus brunneicapillus*) (locally uncommon).
- Yellow-breasted Chat (*Icteria virens*) (CSC).
- Western Bluebird (*Sialia mexicana*) (S).
- Bank Swallow (*Riparia riparia*) (CSC).

Still other species may be expected based upon distribution and habitat preferences:

- Fulvous Whistling-Duck (*Dendrocygna bicolor*) (F2).
- Merlin (*Falco columbarius*) (CSC).
- Black swift (*Cypseloides niger*) (CSC).
- Willow flycatcher (*Empidonax traillii*) (CSC).
- Purple Martin (*Progne subis*) (CSC).
- Yellow Warbler (*Dendroica petechia brewsteri*) (CSC).
- Bell's Sage Sparrow (*Amphispiza belli b.*) (Locally uncommon).

6. Mammals

- Los Angeles Pocket mouse (*Perognathus longimembris brevinasus*) (F2).

The following species is reported just outside the mapped area and might also be expected in the Plan Area:

- Stephen's Kangaroo Rat (*Dipodomys stephensi*) (FE, CT).

Still other species may be expected based upon distribution and habitat preferences:

- California leaf-nosed Bat (*Macrotus californicus*) (CSC).
- Spotted Bat (*Euderma maculatum*) (F2).
- Pale Big-eared Bat (*Plecotus townsendi pallescens*) (SA).
- California Mastiff Bat (*Eumops perotis californicus*) (F2).
- Pocketed Free-tailed Bat (*Tadarida femorosacca*) (CSC).
- Ringtail (*Bassariscus astutus*) (CP).
- American Badger (*Taxidea taxus*) (CSC).

SUMMARY OF ISSUES

A great variety of sensitive biological elements are known or potentially occur within the City. Many of these sensitive elements are closely associated with the aquatic and woodland communities of the Santa Ana River and its tributaries. However, it should be noted that sensitive elements may occur in virtually any of the remaining non-urban habitats within the City, and collectively they encompass the entire spectrum of available habitats.

Current legislation and policies have generally benefited the cause of environmental conservation, although much still needs to be done. A number of Federal laws provide for the protection of threatened and endangered species and their habitats; however, other laws which subsidize land reclamation, water projects, and freeway projects have sometimes counteracted this protection. Moreover, Federal laws are limited to actions occurring on Federal lands, Federally-funded projects on private lands, and to projects that require Federal permits. Therefore, they do little to protect species and habitats that may occur on most private projects. Similarly, State laws such as the California Endangered Species Act and the California Native Plant Protection Act provide protection only on State lands or to projects in which a State agency is the principal sponsor. In addition, some laws and programs are not being fully implemented by public agencies due to lack of funding. As a result, many species that would likely qualify for legal protection have not been designated, and many designated species receive little or no active management. The legal protection of biological resources is still generally inadequate to ensure the preservation of yet unlisted species and critically endangered habitats, especially on private lands and for projects that do not require NEPA or CEQA review procedures.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for biological resources in the City of San Bernardino. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "I" and a number in parentheses which refers to the pertinent implementing program.

ISSUE ONE: AREAS OF THE CITY HAVE SIGNIFICANT PLANT AND WILDLIFE SPECIES PRESENT. HOW CAN THE CITY BALANCE THE PRESERVATION OF THEIR HABITATS WITH NEW DEVELOPMENT?

Goal

It shall be the goal of the City of San Bernardino to:

- 10A Conserve and enhance San Bernardino's biological resources, facilitating development in a manner which reflects the characteristics, sensitivities, and constraints of these resources.

Objective

It shall be the objective of the City of San Bernardino to:

- 10.1 Maintain data and information regarding areas of significant biological resource value to facilitate resource conservation and appropriate management of development.

Policy

It shall be the policy of the City of San Bernardino to:

- 10.1.1 Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the planning area (I10.1).

Objective

It shall be the objective of the City of San Bernardino to:

- 10.2 Site and develop land uses to minimize the impacts on sensitive biological resources.

Policies

It shall be the policy of the City of San Bernardino to:

- 10.2.1 Designate foothill, Santa Ana River, Cajon Creek, Lytle Creek, and other areas depicted in Figure 41 (Environmental Resource/Hazards Composite Overlay) as a "Biological Resource Management Area" (BRM) and review all development in accordance with subsequent policy (I10.2- I10.5).
- 10.2.2 Require that all permitted land uses in the BRM be subject to review by the Environmental Review Committee (ERC), which shall solicit the input of biologists, botanists, and other qualified environmental professionals for conformance with the policies and standards stipulated herein (I10.2- I10.5).
- 10.2.3 Require that development in the BRM:
- a. Submit a report prepared by a qualified professional(s) which addresses the proposed project's impact on State and Federally listed and candidate plants and animals; California Special Animals (CDFG); natural communities of high inventory priority with the Department of Fish and Game's Nongame Heritage Program and any other special interest taxa or communities identified in the General Plan Technical Background Report;
 - b. identify mitigation measures necessary to eliminate significant adverse impacts to the aforementioned sensitive biological resources; and
 - c. define a program for monitoring, evaluating the effectiveness of, and ensuring the adequacy of the specified mitigation measures (I10.2 through I10.5).
- 10.2.4 Require that biological surveys prepared for projects located in the Biological Resource Management Overlay discuss restoration of significant habitats, to the extent feasible, as a mitigation measure (I10.2 and I10.3).
- 10.2.6 Pursue voluntary open space or conservation easements to protect sensitive species or their habitats (I10.3, I10.5, and I10.9).

Objective

It shall be the objective of the City of San Bernardino to:

- 10.3 Protect Riparian Corridors to provide habitat for fish and wildlife.



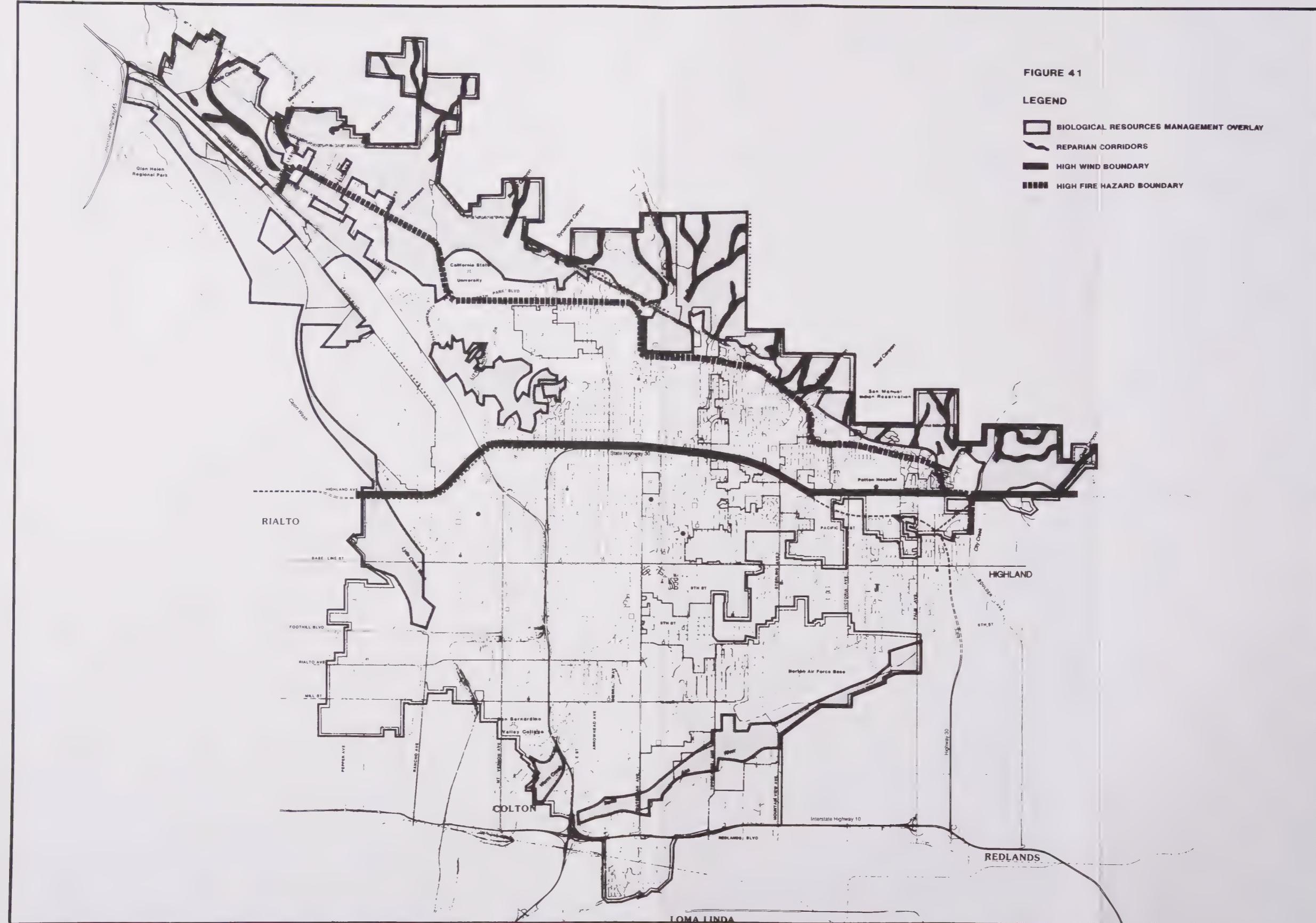


FIGURE 41

LEGEND

- BIOLOGICAL RESOURCES MANAGEMENT OVERLAY
- REPARIAN CORRIDORS
- HIGH WIND BOUNDARY
- HIGH FIRE HAZARD BOUNDARY

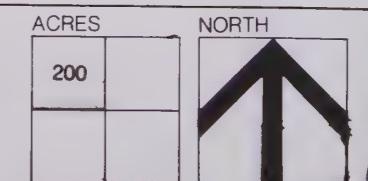
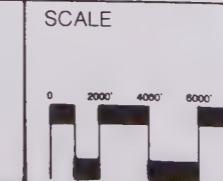
ENVIRONMENTAL RESOURCES/HAZARDS

City of San Bernardino General Plan

ENVICOM CORPORATION in association with

DKS ASSOCIATES • NATELSON - LEVANDER - WHITNEY •
ALBERT A. WEBB ASSOCIATES •
ROSENKRANZ STRACK GROUP, INC. • SAGE ASSOCIATES

COMPOSITE
OVERLAY





Policies

It shall be the policy of the City of San Bernardino to:

- 10.3.1 Prohibit development and grading within fifty (50) feet of riparian corridors, as designated in the BRM areas unless no feasible alternative exists to enable the development of a legal parcel of record for a single-family residence (I10.2).
- 10.3.2 Permit the following uses within riparian corridors:
- a. education and research, excluding buildings and other structures;
 - b. passive (non mechanized) recreation;
 - c. trails and scenic overlooks on public land(s);
 - d. fish and wildlife management activities;
 - e. necessary water supply projects;
 - f. resource consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code;
 - g. flood control projects where no other methods are available to protect the public safety;
 - h. bridges when supports are not in significant conflict with corridor resources; and
 - i. pipelines.
- 10.3.3 Development adjacent to riparian corridors shall minimize removal of vegetation; minimize erosion, sedimentation and runoff by appropriate protection or vegetation and landscape; provide for sufficient passage of native and anadromous fish as specified by the California Department of Fish and Game; minimize wastewater discharges and entrapment; prevent groundwater depletion or substantial interference with surface and subsurface flows; and provide for natural vegetation buffers (I10.2).
- 10.3.4 Permit modification of the boundaries of the designated riparian corridors based on field research and aerial interpretation data as part of the biological survey in accordance with Policy 10.2.3 (I10.1-I10.5).

Objective

It shall be the objective of the City of San Bernardino to:

- 10.4 Establish open space corridors to off-site protected wildlands.

Policies

It shall be the policy of the City of San Bernardino to:

- 10.4.1 Initiate a study to determine the feasibility of establishing a contiguous open-space corridor which would connect the Cajon Lytle Creek wash to the publicly owned National Forest lands via Cable Creek and/or Devil Canyon (I10.6, I10.7, and I10.9)
- 10.4.2 Seek to acquire real property rights of open space corridor parcels identified as being suitable for acquisition (I10.6, I10.7, and I10.9).
- 10.4.3 Establish the following habitat types as high-priority for acquisition as funds are available:
- a. habitat of endangered species;
 - b. alluvial scrub vegetation;
 - c. riparian vegetation dominated by willow, alder, sycamore, or native oaks; and
 - d. native walnut woodlands (I10.6, I10.7, and I10.9).

Objective

It shall be the objective of the City of San Bernardino to:

- 10.5 Preserve and enhance the natural characteristics of the Santa Ana River, City Creek, and Cajon Creek as habitat for the Santa Ana River Sucker and Pacific Speckled Dace.

Policy

It shall be the policy of the City of San Bernardino to:

- 10.5.1 Delineate, within the data base report, the habitats of the Santa Ana River Sucker (*Catastomus santaanae*) and Pacific Speckled Dace (*Rhinichthys osculus carringtoni*); develop recommendations for preservation and enhancement of these habitats; and develop standards for development of adjacent lands (I10.1, I10.2, and I10.8).

Objective

It shall be the objective of the City of San Bernardino to:

- 10.6 Halt the further loss of existing stands of Santa Ana River Wooly-star (*Eriastrum densifolium sanctorum*) and Slender-horned Centrostegia (*Centrostegia leptoceras*).

Policies

It shall be the policy of the City of San Bernardino to:

- 10.6.1 Require that mineral extraction (sand and gravel) projects submit a survey for rare plants prepared by a qualified botanist which shall be prepared in accordance with the Department of Fish and Game's Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Communities (CDFG, 1984) (I10.2).
- 10.6.2 Require that mineral extraction projects mitigate impacts to endangered plants according to the Mitigation Policy and Guidelines Regarding Impacts to Rare, Threatened and Endangered Plants developed by the California Native Plant Society Scientific Advisory Committee (January, 1988) (I10.2).
- 10.6.3 Restrict off-road vehicle recreation in sensitive habitat areas of Cajon and Lytle Creeks (I10.2).

IMPLEMENTATION PROGRAMS

The following lists the programs to implement the biological resource policies contained in the preceding sub-section of the Plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

I10.1 The City shall establish and maintain a data base report of sensitive biological elements, including plants, animals, and natural communities as identified by the California Department of Fish and Game's Natural Diversity Data Base. The area of coverage required shall include the five 7.5-minute quadrangles (Redlands, San Bernardino (Redlands, San Bernardino North, San Bernardino South, Harrison Mountain and Devore) encompassing the City's boundary. This report shall be updated at a minimum of every two years.

The Data Base Report and accompanying maps for the City shall be made available in the office of Planning Department and shall be referred to during the Initial Study of each project proposed to the City to determine the potential for impacts to known sensitive biological elements.

I10.2 The City's Zoning and Subdivision Ordinances (Development Code) shall be revised to incorporate:

- a. development restrictions and standards for the Biological Resources Management Overlay, riparian corridors, the Santa Ana River, and Cajon and Lytle Creek habitats defined by the policies of this Plan;
- b. prohibitions on the take of Federally listed endangered species, direct or incidental;
- c. procedures for the role and responsibilities of the Environmental Review Committee. This shall include procedures for the appeal of Committee recommendations.

I10.3 The City shall retain a consulting biologist and other appropriate environmental professionals to review biological surveys for all projects located in the Biological Resource Management Overlay. The review fee shall be borne by the project proponent. The recommendations of the consulting biologist and environmental professional shall be considered during the environmental review process.

I10.4 The City shall consult with the California Department of Fish and Game on any project that could affect a species which is listed or in fact rare, threatened or endangered (CEQA Guideline Section 15380, as identified by the biological survey).

- I10.5 The City shall require the applicant for a proposed project within or potentially affecting the resources of a Riparian Corridor to enter into an agreement with the California Department of Fish and Game, as applicable, pursuant to Chapter 6 of Division 2 of the Fish and Game Code.
- I10.6 The city shall identify areas and formulate recommendations for the acquisition of property, including funding, to establish a permanent corridor contiguous to the National Forest via Cable Creek and/or Devil Canyon. The City shall consult with various federal, state and local agencies and City departments prior to the adoption of any open space corridor plan.
- I10.7 The City shall consider mechanisms for the acquisition of real property in areas determined suitable for the establishment of a permanent corridor connection between the Cajon-Lytle Creek wash and National Forest lands via Cable Creek and/or Devil Canyon. These may include: (a) acquisition of fee-simple absolute interests; (b) acquisition of easement interests; (3) leasing; (d) lease-purchase agreements; (e) purchase and resale; (f) joint acquisition; and (g) land swapping. Funding sources may include the General Fund, exactions from new development projects, wildlife enhancement assessment districts, private donations, and State programs (Land and Water Conservation Fund, Environmental License Plate Fund, Wildlife Conservation Board Program).
- I10.8 The City shall formulate recommendations for the preservation and enhancement of the habitat of sensitive fish species. The feasibility of developing and implementing a program of fisheries habitat enhancement including: stream bank revegetation; maintenance of critical levels of stream flow volume; and the creation of pools will be considered. The City shall consult with various federal, state, and local agencies and City departments prior to the adoption of any preservation and enhancement plans or policies.
- I10.9 The City shall consider the offer of preferential assessments on real property supporting endangered plants as an incentive for retaining these lands in open-space. Such incentives might include: (a) conservation and open space easements; (b) transfer of development rights; and (c) deed restrictions.

B. MINERAL RESOURCES

INTRODUCTION AND STATUTORY REQUIREMENTS

The California Government Code requires that an area's mineral resources be identified and pertinent policies be specified in two elements, Conservation and Open Space. Government Code Section 65302(d) stipulates that "the general plan shall include a conservation element for the conservation, development, and utilization of natural resources including...minerals,...". In addition, Government Code Sections 65302(e) and 65560 require that the general plan shall include an open space element providing "open space used for the managed production of resources, including but not limited to....areas containing major mineral deposits, including those in short supply."

BACKGROUND DATA AND ANALYSIS

In the San Bernardino City area the bulk of the construction aggregate is found in the natural sand and gravel deposits of Cajon Wash, Lytle Creek, Warm Creek, City Creek, and the Santa Ana River.

The first mineral commodity selected by the State Mining and Geology Board for classification by the state Geologist was construction aggregate--sand, gravel, and crushed rock. In 1975, the State legislature adopted the Surface Mining and Reclamation Act (SMARA). This designated Mineral Resources Zones for areas processing minerals which were of State-wide or regional importance. Several areas within the San Bernardino region have been classified as Mineral Resource Zone 2 (MRZ-2). MRZ-2 areas indicate the existence of a construction aggregate deposit that meets certain State criteria for value and marketability based solely on geologic factors. By statute, the Board does not utilize "existing land uses" as a criteria in its classification of Mineral Resource Zones. This may often result in the classification of MRZs which are already developed in a variety of uses and intensities, rendering these areas unsuitable for mineral production. However, additional State studies in San Bernardino include the criteria of "existing land use." This helps identify resource sectors that contain aggregate resources which remain potentially available from a land use perspective (Miller, 1984). The resource sectors within the planning areas are depicted in Figure 42. Many of these overlie construction aggregate deposits.

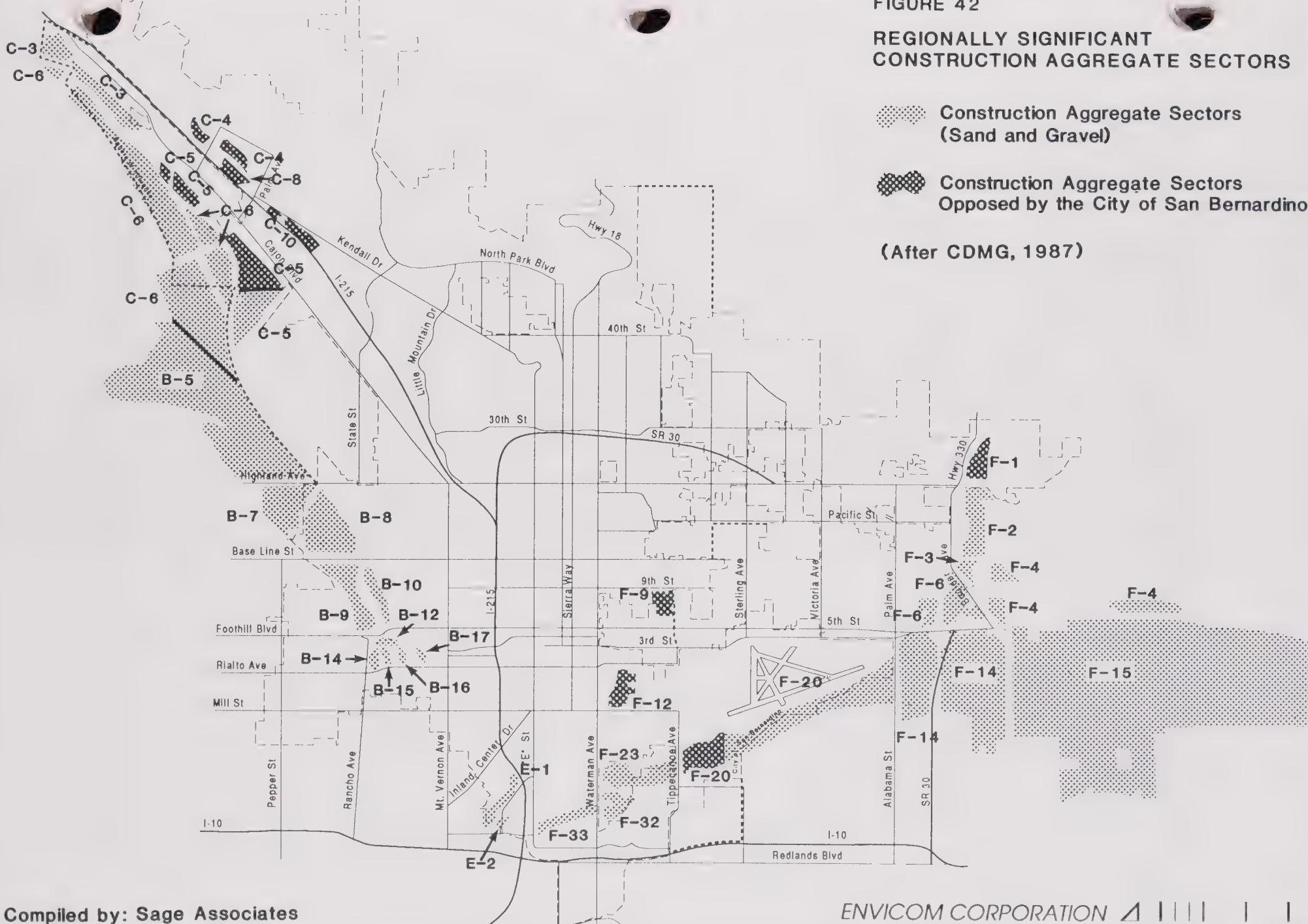
The presence of resource sectors require that the General Plan show the location of the sectors and incorporate policies for the management of their mineral resources. If a city proposes a land use that is incompatible with mineral extraction in or near resource sectors, it must reveal why the mineral resource is not being protected. In 1985, the City of San Bernardino requested deletion of 12 of their 31 designated Mineral Resource Sectors. As of January 1987, five of the sectors had been deleted by the State, and seven sectors were still being opposed by the City for mineral resource designation (Figure 42). The City's recommended findings are summarized below from a Planning Department Staff Report (1985):

FIGURE 42

REGIONALLY SIGNIFICANT
CONSTRUCTION AGGREGATE SECTORS

- Construction Aggregate Sectors (Sand and Gravel)
- Construction Aggregate Sectors Opposed by the City of San Bernardino

(After CDMG, 1987)



Compiled by: Sage Associates

ENVICOM CORPORATION A N O 3000 9000 ft

The City requests that all of the "C" subsectors be deleted from consideration because they are located in the area experiencing a growth rate in excess of 25%, the highest in the City. As part of the Verdemont Area Plan, a biological survey was performed (Pacific Southwest Biological Services, Inc., July 31, 1985) that identified a rare and endangered plan species located in portions of Sectors C-4 and C-8. Further information indicates that the survey was incomplete and that the habitat for the plan extends over a greater area than previously identified. Traffic and safety concerns make these sectors unsuitable for designation.

The City would like to see the majority of the "F" subsectors removed from consideration because of their location in highly urbanized areas. They do not have direct freeway access and, therefore, would create safety, traffic, fugitive dust, and noise problems. Although some of the subsectors are vacant, the surrounding land uses are such that incompatibility of uses would be a major concern. Because the area is urbanized, the City could not provide a buffer between the existing uses and any proposed mining.

ISSUES

The following indicates the issues of the San Bernardino planning area.

1. General Plan determination, land use designation, and reclamation requirements will need to be formulated with regard to the above resource sectors recommended for deletion, and with regard to the longevity of the other resource sectors as potential construction aggregate resource areas.
2. Determination and designation of approved access routes to and from mineral resource sectors. These routes are to be used by vehicles associated with aggregate extraction.
3. Formulation of acceptable types of land uses adjacent to the resource sectors. For example, schools and residential land uses are probably incompatible with adjacent aggregate production. Light or heavy industrial uses may be compatible. Recreational and open space uses should also be considered as part of any surrounding land use elevation.
4. The land use planning effects of a City-designated Enterprise Zone on the State designated Mineral Resource Sectors.
5. Consideration and enforcement of mitigation measures to reduce dust, noise and safety hazards associated with removal of construction aggregate.
6. The advantages or disadvantages from a land use planning perspective, of having resource sectors designated as a part of high liquefaction areas or active fault traces where other types of development may be hazardous.

7. Designation of post aggregate extraction reclamation procedures to mitigate environmental impacts and safety hazards. Implementation of long-term monitoring of the effectiveness of the reclamation procedures should be considered as an integral part of the program.

GOALS, OBJECTIVES, POLICIES AND PROGRAMS

OVERVIEW OF MINERAL RESOURCE POLICIES AND PROGRAMS

The City's policies and programs for mineral resources shall be designed to ensure that adequate sand and gravel extraction sites are available while not adversely affecting other land uses., The presence of State resource sectors, that contain aggregate materials potentially available from a land use perspective, require that the General Plan incorporate policies for the management of these resources. Reclamation of mineral resource extraction areas should also be considered an integral part of the land use planning process.

The following presents the goals, objectives and policies for mineral resources in the City of San Bernardino. Implementation programs are contained in the following subsection. At the end of each policy is listed a capital "I" and a number in parentheses which refers to the pertinent implementing program.

Goals

It shall be the goal of the City of San Bernardino to:

- 10B Proper management of designated areas for mineral extraction to meet the needs of the area.
- 10C Reduce incompatibilities between mineral extraction areas and other land uses.
- 10D Ensure adequate reclamation of mineral extraction area.

ISSUE ONE: LOCATION OF MINERAL RESOURCE EXTRACTION AREAS

Objective

It shall be the objective of the City of San Bernardino to:

- 10.7 Identify areas of significant resource potential for future use and document areas of current mineral resource extraction, as a basis for land use and conservation policies and programs.

Policies

It shall be the policy of the City of San Bernardino to:

- 10.7.1 Compile and maintain maps and descriptions of potential mineral resources as a basis for policy and program implementation (I10.10).

- 10.7.2 Document current extraction sites, including sand and gravel quarries, including the status and duration of existing permits and approvals, for compliance monitoring (I10.10).
- 10.7.3 Support local mapping and research programs of the California Division of Mines and Geology and Federal agencies that locate and describe mineral resource deposits (I10.10).
- 10.7.4 Encourage and support the exchange of baseline information on mineral resources between the City, private industry, and San Bernardino County (I10.10).
- 10.7.5 Cooperate with other governmental agencies and educational institutions to arrange for the development and exchange of information on mineral resources (I10.10).
- 10.7.6 Maintain a San Bernardino planning area mineral resources mapping program on an ongoing basis (I10.10).
- 10.7.7 Require that (a) any applications to permit uses other than mineral extraction or the interim uses defined in the Land Use section in areas designated IE, Industrial Extractive, shall include findings to be prepared by the project proponent and submitted with the application; (b) development proposals in areas designated Construction Aggregate Sectors as shown on Figure 42, with which the City does not concur, shall include findings to be prepared by the Planning Department; and (c) findings shall include the reasons why mining is not a feasible use of the property and how the deletion of the area as a potential mineral resource supply impacts the regional supply of aggregate resources (I10.11).
- 10.7.8 Permit the extraction of mineral resources in areas designated IE, Industrial Extractive, on the Land Use Plan consistent with the aggregate sections shown on Figure 42 (I10.11).
- 10.7.9 Permit interim uses such as outdoor storage, lumber yards, plant nurseries, recreation, and so forth that don't preclude extractive uses (I10.11).

ISSUE TWO: COMPATIBLE LAND USES

Objective

It shall be the objective of the City of San Bernardino to:

- 10.8 Protect significant mineral resources for long-term availability and avoid conflicts between the productive use of mineral resource lands and urban growth.

Policies

It shall be the policy of the City of San Bernardino to:

- 10.8.1 Protect significant mineral resource areas, including potential sand and gravel extraction areas, by the use of mineral resource zoning designations that include compatible low-density interim uses (I10.11).
- 10.8.2 Establish buffer zones of compatible uses (such as industry) adjacent to mineral resource zones (I10.11)
- 10.8.3 Require that specific development proposals for mineral extraction be subject to the discretionary approval of the Planning Commission and Mayor and Common Council (I10.11).
- 10.8.4 Encourage resource extraction uses located within geologic hazard areas such as along active fault traces and in liquefaction areas within designated Mineral Resource Zones (I10.11)
- 10.8.5 Require that all proposed mineral extraction projects be subject to the requirements of the California Environmental Quality Act and consistent with the Surface Mining and Reclamation Act (I10.11, I10.12, I10.13, I10.14)
- 10.8.6 Prohibit urban development in areas which have a significant potential for harm to public health, safety and welfare due to mineral extraction and processing (I10.11).
- 10.8.7 Design resource extraction operations to maintain the integrity of areas of "high environmental quality" and scenic areas as designated by the City (I10.11).
- 10.8.8 Require that access roads to resource extraction areas meet standards for noise, dust control, erosion control and grading, to minimize adverse impacts to adjacent residential and commercial areas (I10.11).

- 10.8.9 Review Title 17, Environmental Protection, of the Municipal Code pertaining to Surface Mining and Land Reclamation to ensure that it is consistent with the General Plan (I10.13, I10.14).

ISSUE THREE: RECLAMATION

Objective

It shall be the objective of the City of San Bernardino to:

- 10.9 Ensure adequate reclamation of mineral resource extraction areas.

Policies

It shall be the policy of the City of San Bernardino to:

- 10.9.1 Require that all mineral extraction reclamation plans be subject to the requirements of the California Environmental Quality Act and consistent with the Surface Mining and Reclamation Act (I10.11, I10.12, I10.13, I10.14).
- 10.9.2 Review all mineral reclamation projects under the policies and procedures of the California Environmental Quality Act and the Surface Mining and Reclamation Act (I10.11, I10.12, I10.13, I10.14).
- 10.9.3 Requires that permits for mineral reclamation projects specify compliance with State, Federal and local standards and attainment programs with respect to air quality, protection of rare, threatened or endangered species, conservation of water quality, watersheds and basins, and erosion protection (I10.11, I10.12, I10.13, I10.14).
- 10.9.4 Require that the Planning Commission and Mayor and Common Council have discretionary approval of all reclamation plans (I10.11).

IMPLEMENTATION PROGRAMS

The following lists include the programs to implement the mineral resources policies contained in the preceding subsection of the plan. The capital "I" and the number preceding each program are referenced by the policies which they implement.

A. LOCATION OF MINERAL RESOURCE EXTRACTION AREAS

- I10.10 Maps showing mineral resource sectors, existing extraction sites, and currently proposed sites and permits shall be prepared and be available for review in the Planning Department.

B. COMPATIBLE LAND USES

- I10.11 The City shall designate lands for the extraction of mineral resources as per the State designations as defined by the State Mining and Geology Board as shown on Figure 42. The Land Use Plan includes an IE Industrial Extractive land use designation and the Land Use section of the text defines permitted interim uses.

The City shall consider the following land use categories when reviewing proposed land uses on or adjacent to an area designated for the extraction of resources as shown on the Land Use Plan.

- a. Incompatible - land uses inherently incompatible with mining and/or that require a high public or private investment in structures, land improvements, and landscaping and that would prevent mining because of the higher economic value of the land and its improvements.

Examples of such uses include high density residential, low density residential with high unit value, public facilities, intensive industrial, and commercial.

- b. Compatible - Land uses inherently compatible within mining and/or that require a low public or private investment in structures, land improvements, and landscaping and that would allow mining because of the low economic value of the land and its improvements.

Examples of such uses include very low density residential (for example one unit per ten acres), extensive industrial, recreation (public/commercial), agricultural, silvicultural, grazing, and open space).

- c. Interim - Land uses that require structures, land improvements, and the landscaping of a limited useful life and from an economic and political standpoint can be converted to mining at the end of that limited life.

I10.12 Upon receipt of application for mineral resource exploration or development, the Planning Department staff shall contact responsible local, State, and Federal agencies to establish development compliance criteria, health hazard safeguards, and necessary on-site monitoring programs to assure mitigation of potential environmental impacts (such as approved access, dust, noise, visual).

C. RECLAMATION

- I10.13 All proposals for mineral extraction shall also include a reclamation plan pursuant to the Surface Mining and Reclamation Act.
- I10.14 All approved mineral extraction and reclamation plans shall be sent to the Division of Mines and Geology.

C. CLIMATE AND AIR QUALITY

INTRODUCTION

While an Air Quality Element is not required by the State, the airshed is a scarce, non-renewable resource which has become so adversely polluted in southern California that its conservation is of critical concern. Though the City of San Bernardino is a small part of the total South Coast Air Basin and cannot mitigate the regional problem, it can take actions to incrementally reduce its share of emissions and protect its residents. Regional strategies to improve the air quality are incorporated in the South Coast Air Quality Management Plan, prepared by the Southern California Association of Governments.

BACKGROUND DATA AND ANALYSES

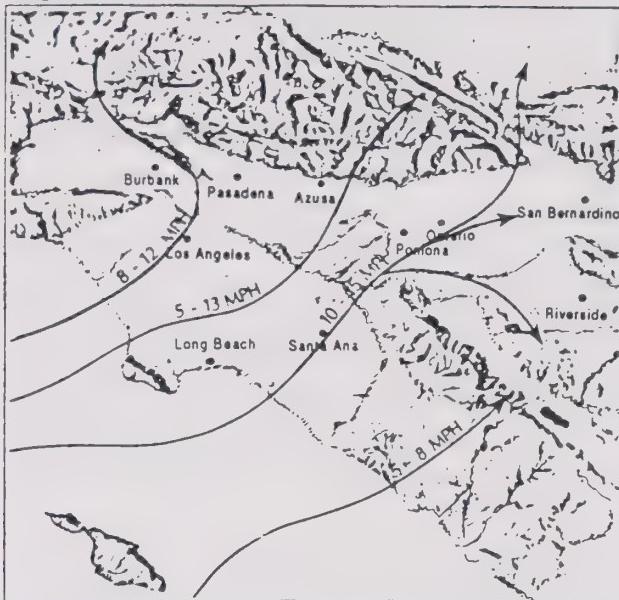
1. Climate

The City of San Bernardino, is in the northeastern portion of the San Bernardino Valley, within the South Coast Air Basin, a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest and high mountains forming the remainder of the perimeter. The distinctive climate of the basin is determined by its terrain, latitude and coastal location. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes. This mild climatic pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or northeasterly Santa Ana winds.

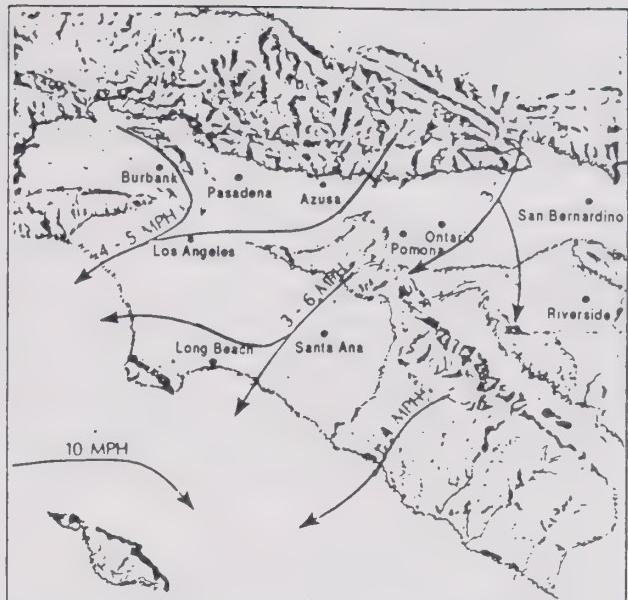
Figure 43 shows the terrain of the South Coast Air Basin from the coast to the Basin boundary which follows a path approximating mountain ridges. The high desert is shown north of the basin and the low desert to the east. For the period of the day shown, the net transport of air onshore usually is greater in the summer, while the net offshore transport, as a rule, is greater during the winter. The amount of air movement (or stagnation) during the morning and evening hours before these dominant air flow patterns take effect is one of the critical factors which determines the degree of air pollution on any given day.

The coolest months are January and December with a mean monthly minimum temperature of 39.4°F (4.1°C). The warmest month is July with a mean monthly maximum of 97.6°F (36.4°C). Eastern Pacific Ocean influence is reflected in the mean number of heating (1,777) and cooling (1,718) degree days, and the mean monthly temperatures. (Heating and cooling-degree days are an index relating heating and cooling demand to weather conditions. A heating and cooling degree-day is a unit of measurement of 1°F (1°C) and the mean outside temperature for a one-day period. For example, Duluth, Minnesota averages 9,250 heating degree-days a year while Los Angeles averages 2,060) (Kornher and Zaugg, 1984:3; Wendy 1983:279; Huschke, 1959:157).

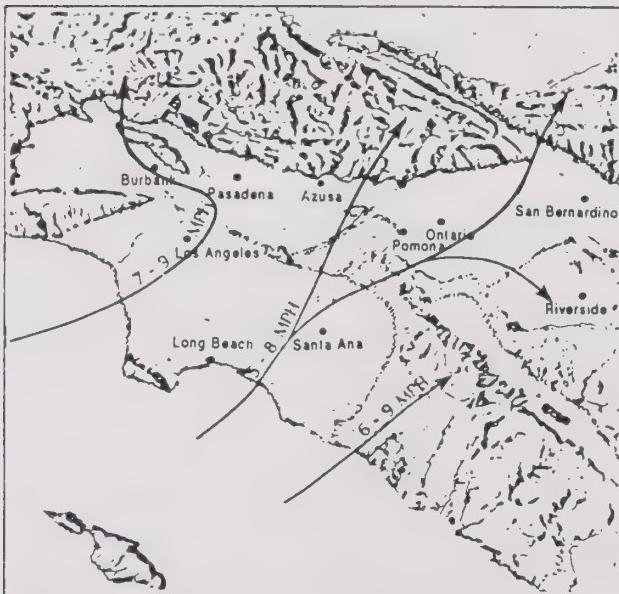
Figure 43. South Coast Air Basin.



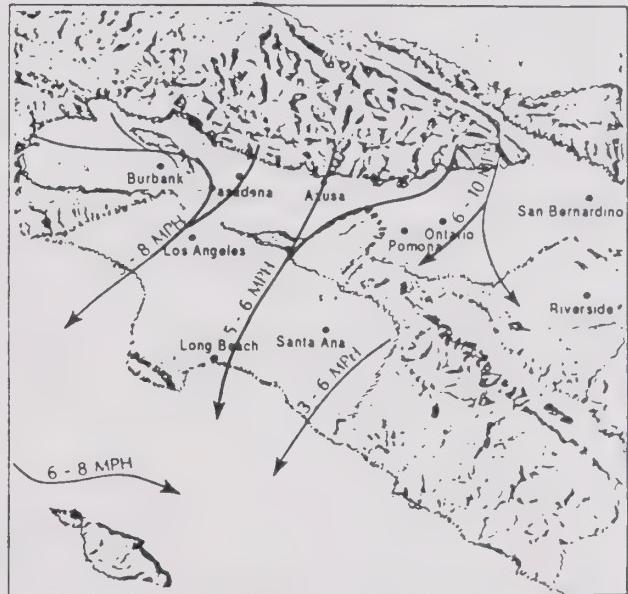
TYPICAL SUMMER DAYTIME OCEAN WINDS
(Noon to 7:00 PM)



TYPICAL SUMMER NIGHT DRAINAGE WINDS
(Midnight to 5:00 AM)



TYPICAL WINTER DAYTIME OCEAN WINDS
(Noon to 5:00 PM)



TYPICAL WINTER NIGHT DRAINAGE WINDS
(Midnight to 7:00 AM)

These maps show dominant summer and winter wind patterns in the South Coast Air Basin. For the period of the day shown, the net transport of air onshore usually is greater in the summer, while the net offshore transport as a rule is greater during the winter. Whether there is air movement or air stagnation during the morning and evening hours, before these dominant air flow patterns take effect, is one of the critical factors in determining the smog situation on any given day.

Mean annual San Bernardino precipitation is 15.68 inches for the 30-year period 1951-80. Mean annual potential evapotranspiration is 30 to 60 inches and there is generally a large moisture deficit*. Ninety-eight percent of precipitation falls in Autumn, Winter and Spring: 8.44 inches (53.8%) during December-February, 4.36 inches (27.8%) during March-May, 0.25 inches (1.6%) during June-August and 2.63 inches (16.8%) during September-November (USDC, 1982).

Rainy days vary from five to 10 percent of all days in the basin, the frequency being higher near the coast. Although the South Coast Air Basin has a semiarid climate, the air near the surface is frequently humid because of the presence of a shallow marine layer on most days. Except for infrequent periods when dry, continental air enters the basin, the maritime air mass is dominant. Periods with heavy fog are frequent; and low stratus clouds, sometimes referred to as "high fog", are a characteristic climatic feature. Mean annual relative humidity is 70 percent at the coast and 57 percent inland.

Because of a persistent low inversion and cool maritime air, morning fog and low stratus clouds are common. However, 73 percent of possible sunshine is recorded in downtown Los Angeles, an important factor considering the necessary role of sunshine in the process of reducing photochemical smog. There are 185 clear days (zero to 0.3 of the sky obscured by clouds), 106 partly cloudy days (0.4 to 0.7 cloud cover), and 74 cloudy days (0.8 to full cloud cover) each year on the average. Cloudiness is slightly less near San Bernardino and about 25 percent greater along the coast.

With very light average wind speeds, the basin atmosphere has a limited capability to disperse air contaminants horizontally. San Bernardino, at Norton Air Force Base, has a mean annual resultant wind speed of 4.1 miles per hour from the northwest. Predominant winds average 7.4 miles per hour from the west-southwest (Hayes, et al. 1984:D-61). The dominant daily wind pattern is a daytime sea breeze and a nighttime land breeze, as shown in Figure 43. This regime is broken only by occasional winter storms and infrequent strong northeasterly Santa Ana flows from the Great Basin and Mojave and deserts north of the San Bernardino Valley and South Coast Air Basin.

2. Air Quality

Air quality in the San Bernardino area is largely dependent upon climatic conditions. The net input of pollutants into the South Coast Air Basin atmosphere from mobile and stationary sources is much the same every day of the year. Pollutants enter the surface air layers and can mix with less contaminated air from anywhere below the inversion base. The contaminants in the surface layers tend to diffuse and form a relatively uniform mixture (in some cases higher concentrations exist immediately below the inversion base) all the way up to the mixing height. They cannot rise through the inversion. As a

* Evapotranspiration is the process by which water is transferred from the earth's surface to the atmosphere. Potential evapotranspiration (PE), an indicator of energy available for evapotranspiration, is the amount of water that could be lost if available. If precipitation is low and PE high (60 inches) such as in San Bernardino, the atmosphere can potentially take away 45 inches of water and there is a shortfall or deficit of moisture. (Huschke, 1959: 213; Oliver, 1987:449.)

result, these air pollutants become more and more concentrated unless the inversion layer lifts or unless surface winds are strong enough to disperse the pollutants horizontally.

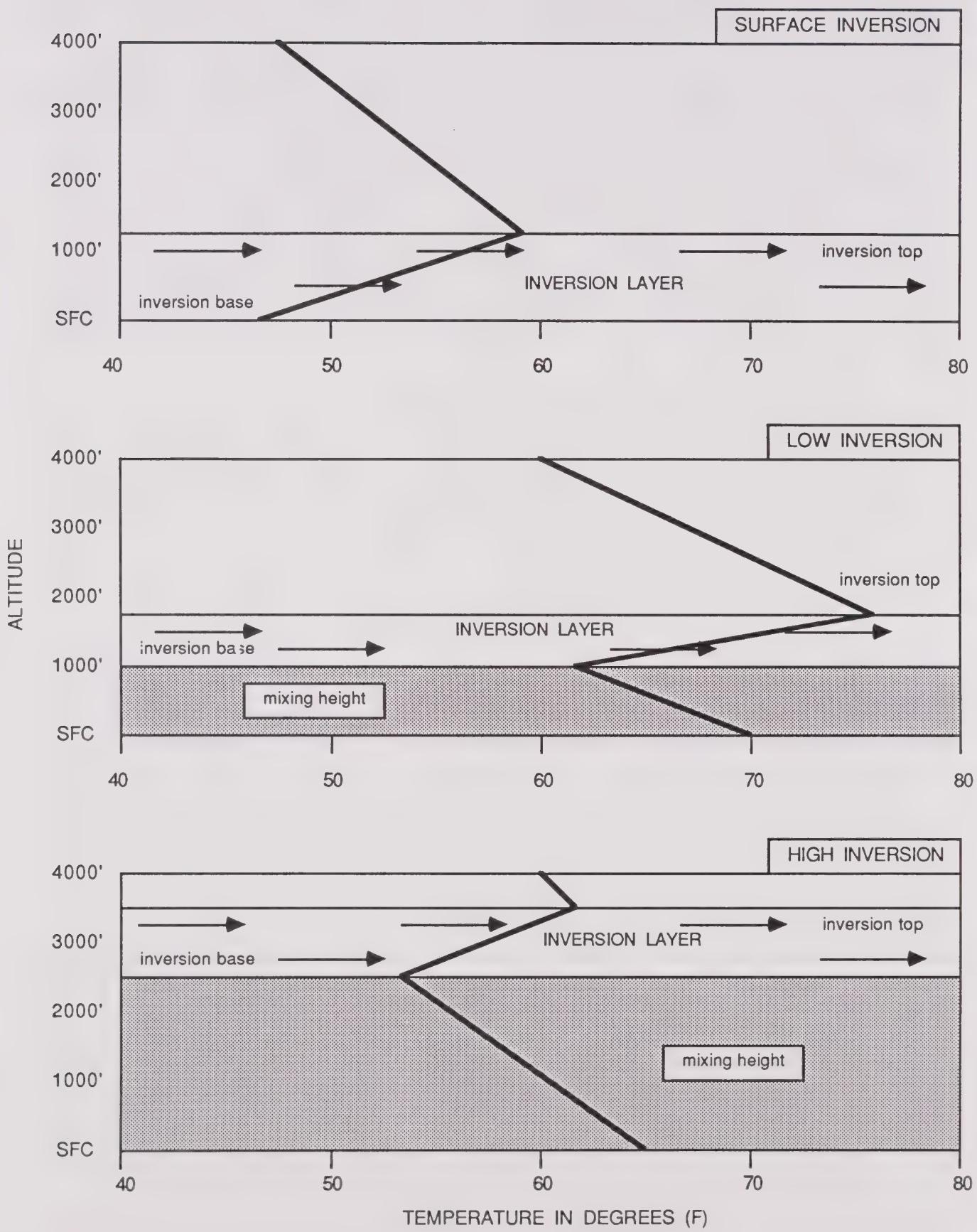
On practically all spring and early summer days, most of the pollution produced during an individual day is moved out of the basin through mountain passes or is lifted by the warm, vertical currents produced by heating of mountain slopes. In those seasons, the basin can be "flushed" of pollutants by a transport of ocean air from 60 miles or more during the afternoon. From late summer through the winter months, the flushing is less pronounced because of lighter wind speeds and the earlier appearance of offshore (drainage) winds. With extremely stagnant wind flows, the drainage winds may begin near the mountains by late afternoon. Remaining pollutants are trapped and begin to accumulate during the night and the following morning. A low average morning (6:00 a.m to noon) wind speed in pollution source areas is an important indicator of air stagnation potential.

The vertical dispersion of air pollutants in the South Coast Air Basin is hampered by the presence of a persistent temperature inversion in the layers of the atmosphere near the surface of the earth. Because of expansional cooling, temperature usually decreases with altitude. A reversal of this state of the atmosphere, wherein temperature increases with altitude, is termed an inversion, which can exist at the surface or at any height above the ground as illustrated in Figure 44. The height of the base of the inversion at any given time is known as the "mixing height". The mixing height can change under conditions when the top of the inversion does not change.

Usually, inversions are lower before sunrise than during the daylight hours. The mixing height normally increases as the day progresses, because the sun warms the ground, which in turn warms the surface air layer. As this heating continues, the temperature of the surface layer approaches the potential temperature of the base of the inversion layer. When these temperatures become equal, the inversion layer begins to erode at its lower edge. If enough warming takes place, the inversion layer becomes weaker and weaker and finally "breaks". The surface air layers can then mix upward without limit. This phenomenon is frequently observed in the middle of late afternoon on hot summer days when the smog appears to clear up suddenly. Winter inversions frequently break by mid-morning, thereby preventing contaminant build-up.

The combination of low wind speeds and low inversions produces the greatest concentration of pollutants. On days of no inversion or on days of winds averaging over 15 mph, there will be no important smog effects, summer or winter. In the winter, the greatest pollution problems are carbon monoxide and oxides of nitrogen because of extremely low inversions and air stagnation during the night and early morning hours. Photochemical smog levels are much lower during this season due to the lack of strong inversions during the daylight hours and the lack of intense sunlight which is needed for the photochemical reactions.

FIGURE 44
TEMPERATURE INVERSIONS



Source: "Air Quality Handbook", SCAQMD, Revised April 1987.

In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen to form more of the typical photochemical smog. Carbon monoxide is not as great a problem in summer because inversions are not as low and intense in the surface boundary layer (within 100 feet of the ground) as in winter and because horizontal ventilation is better in summer.

Along the southern California coast, surface air temperatures are relatively cool. The resultant shallow layer of cool air at the surface, coupled with warm, dry, subsiding air from aloft produces early morning inversions on about 87 percent of the days.

The basin-wide average occurrence of inversions at the ground surface is 11 days per month; the averages vary from two days in June to 22 days in December and January. Higher inversions, but less than 2,500 feet above sea level, occur 22 days each month. Restricted maximum mixing heights, 3,500 feet above sea level or less, average 191 days each year.

The potential for high concentrations varies seasonally for many contaminants. During late spring, summer, and early fall, light winds, low mixing heights and brilliant sunshine combine to produce conditions favorable for the maximum production of photochemical oxidants, mainly ozone. During the spring and summer, when fairly deep marine layers are frequently found in the Basin, sulfate concentrations are at their peak.

When strong surface inversions are formed on winter nights, and are coupled with near-calm winds, carbon monoxide (CO) from automobile exhausts becomes highly concentrated. The highest yearly CO values are generally measured during November, December and January. Similarly, concentrations of oxides of nitrogen and nitrates are highest during the late fall and winter.

The South Coast Air Basin has been designated by the EPA as a non-attainment area which is defined as an area not expected to meet National Ambient Air Quality Standards (NAAQS) by December 31, 1987. Consequently, the SCAQMD and Southern California Association of Governments (SCAG) have prepared an Air Quality Management Plan (AQMP, 1988) which specifies ways to meet State and Federal standards. This document is incorporated by reference and is available for review at the City of San Bernardino Planning Department. It should be noted that the 1989 AQMP was adopted on 17 March, 1989, subject to review of the California Air Resources Board and the Federal Environmental Protection Agency.

Both the State of California and the Federal Government maintain standards for various pollutants that contribute to air quality degradation. State and Federal air quality standards are shown on Table 29. An air quality monitoring station is located within the City limits on 4th Street. This station (Number 203) monitors ozone (O_3), carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxides (SO₂), reactive organic gases (ROG), and fine particulate matter (PM₁₀). Selected pollutants are described in Table 30.

TABLE 29
Ambient Air Quality Standards

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Calif. Standards</u>	<u>National Standards</u>	
		<u>Concentration</u>	<u>Primary</u>	<u>Secondary</u>
Oxidant (Ozone)	1 hour	0.10 ppm (200 ug/m ³)	0.12 ppm ^a 240 ug/m ³	Same as Primary Standards
Carbon Monoxide	8 hour	9 ppm (10 mg/m ³)	9 ppm 10 mg/m ³)	Same as Primary Standards
	1 hour	20 ppm (46 mg/m ³)	35 ppm 40 mg/m ³)	Same as Primary Standards
Nitrogen Dioxide	Annual Average	-	0.05 ppm (100 ug/m ³)	0.053 ppm
	1 hour	0.25 ppm (470 ug/m ³)	-	
Sulfur Dioxide	Annual Average	-	0.03 ppm (80 ug/m ³)	0
	24 hour	0.05 ppm ^b (100 ug/m ³ tsp)	0.14 ppm 365 ug/m ³)	-
	3 hour		-	0.53 ppm
	1 hour	0.25 ppm	-	-

^a EPA revised standard promulgated 2/8/79 in Federal Register, Vol. 44, No. 28. the NAAQS is exceeded in a given year if the maximum hourly average ozone concentration exceeds 0.12 ppm on more than 3 days in the past 3 years.

^b With simultaneous violation of the State 1-hour oxidant standard or State 24-hour TSP standard.

TABLE 29 (Cont.)

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Calif. Standards Concentration</u>	<u>National Standards</u>	
			<u>Primary</u>	<u>Secondary</u>
Fine Particulate Matter (PM ₁₀)	Annual Geometric Mean	60 ug/m ³	75 ug/m ³	60 ug/m ³
	24 hour	100 ug/m ³	260 ug/m ³	150 ug/m ³
Sulfates Lead	24 hour	25 ug/m ³	0	0
	30 day Average	1.5 ug/m ³	-	-
Hydrogen Sulfide	Calendar Quarter	-	1.5 ug/m ³	Same as Primary Standards
	1 hour	0.03 ppm (42 ug/m ³)	-	-
Hydrocarbons (Corrected for	3 hour (6-9 a.m.)	-	0.24 ppm (160 ug/m ³)	Same as Primary Standards
Methane Ethylene	8 hour	0.1 ppm	-	-
	1 hour	0.5 ppm	-	-
Visibility Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility to 10 miles when the relative humidity is less than 70%		

TABLE 30
Description of Air Contaminants

Oxidants (O_3)

The formation of oxidants in the atmosphere requires the presence of sunlight and a series of chemical reactions involving reactive hydrocarbons and oxides of nitrogen. Because of the time required for these reactions, the distribution of oxidants tends to be more regional in nature than other pollutants.

Carbon Monoxide (CO)

The primary source of carbon monoxide is the incomplete combustion of gasoline in motor vehicles.

Nitrogen Oxides (NO_2)

Nitrogen oxide is an indirect product of combustion. Motor vehicles are a major source of nitrogen oxides, but there is also a significant contribution from industrial combustion sources

Fine Particulate Matter (PM_{10})

There are both natural and anthropogenic sources of PM_{10} . Farming operations and industrial activity are major sources of PM_{10} in the air basin. PM_{10} is also a result of particles becoming airborne during natural weathering processes.

Sulfur Dioxide (SO_2)

Sulfur dioxide results from the combustion of fuels containing sulfur. This is primarily the result of oil burning power generating stations and other oil burning industrial users.

The San Bernardino monitoring station has consistently registered values above the State and Federal standards for the various pollutants listed above. Table 31 lists the violations of State air quality standards while Table 32 lists violations of Federal standards. In addition, the number of ozone episodes for this area are listed in Table 33. As shown, the City of San Bernardino is affected regularly by ozone levels well above State and Federal standards. In fact, the State standards is exceeded on approximately 150 days per year while Federal standards are exceeded on approximately 108 days per year. Carbon monoxide levels are recorded below State and Federal standards as are sulfur dioxide levels and nitrogen dioxide levels.

ISSUES

The following issues affecting air quality in the planning area have been identified:

1. Air quality in the South Coast Air Basin is at a level below State and Federal air quality standards, affecting the San Bernardino planning area.
2. Development is contributing to existing occurrences of air pollution levels that exceed State and Federal air quality standards.
3. Localized concentrations of pollutants (i.e., carbon monoxide) presently affect sensitive air quality receptors such as schools, hospitals, and residential areas.
4. Regional air quality goals established in the South Coast Air Basin's Air Quality Management Plan which is presently being revised.

TABLE 31

Violations of State Standards - Annual Maximum Hourly Averages
(San Bernardino Station No. 203)¹

	03		CO ²		SO ₂ ³		NO ₂	
	<u>Days</u> ⁴	<u>Max</u> ⁵	<u>Days</u>	<u>Max</u>	<u>Days</u>	<u>Max</u>	<u>Days</u>	<u>Max</u>
1984	173/197/209	.30/.34/.34 ⁶	0/0/17	9/9/29	0/0/1	.03/.03/.32	0/0/12	.20/.20/.35
1985	155/184/218	.27/.34/.39	0/0/18	9/10/33	0/0/0	.02/.02/.08	0/0/9	.15/.18/.35
1986	149/179/217	.30/.31/.35	0/0/11	9/9/27	0/0/0	.05/.05/.13	0/0/9	.18/.24/.33

1. Prior to 1986, monitoring station No. 194, also located in the City limits, was used.
2. All violations are of the one-hour standard.
3. All violations and maximum are of the 24-hour standard. The one-hour standard was not violated.
4. Number of days violating State standard.
5. Single highest one-hour average of the year in parts per million.
6. Recording for station/recording for County/recording for Basin.

Sources: California Air Resources Board, 1985, Summary of 1984 Air Quality Data.
California Air Resources Board, 1986, Summary of 1985 Air Quality Data.
California Air Resources Board, 1987, Summary of 1986 Air Quality Data.

TABLE 32

Violations of Federal Air Quality Standards
in Days
(San Bernardino Station No. 203)^a

	<u>03^b</u>	<u>CO^c</u>
1984	125/162/175 ^d	0/0/77
1985	111/138/174	0/0/59
1986	108/145/164	0/0/58

^a Prior to 1986, Station No. 194 (3rd Street) was used.

^b Based on Federal standard (one-hour average 0.12 ppm).

^c Based on Federal standard (CO 8-hour average 9.0 ppm).

^d Recording for station/recording for County/recording for Basin.

Sources: California Air Resources Board, 1985, Summary of 1984 Air Quality Data.

California Air Resources Board, 1986, Summary of 1985 Air Quality Data.

California Air Resources Board, 1987, Summary of 1986 Air Quality Data.

TABLE 33

Ozone Episode Levels
(Measured in Days)

	<u>Stage 1^a</u>	<u>Stage 2^b</u>
1984	36/65/97 ^c	0/0/0
1985	30/63/94	0/0/0
1986	41/57/79	0/0/0

a Hourly average of .20 ppm.

b Hourly average of .35 ppm.

c Recording for station/recording for County/recording for Basin.

Sources: California Air Resources Board, 1985, Summary of 1984 Air Quality Data.

California Air Resources Board, 1986, Summary of 1985 Air Quality Data.

California Air Resources Board, 1987, Summary of 1986 Air Quality Data.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives and policies for air quality in the City of San Bernardino. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 10E Promote air quality that is compatible with the health, well being and enjoyment of life.

Objective

It shall be the objective of the City of San Bernardino to:

- 10.10 Reduce the emission of pollutants including carbon monoxide, oxides of nitrogen, photochemical smog, and sulfate in accordance with South Coast Air Quality Management District (SCAQMD) standards.

Policies

It shall be the policy of the City of San Bernardino to:

- 10.10.1 Prohibit the development of land uses (e.g. heavy manufacturing) which will contribute significantly to air quality degradation, unless sufficient mitigation measures are undertaken according SCAQMD standards (I10.17).
- 10.10.2 Require dust abatement measures during grading and construction operations (I10.15).
- 10.10.3 Evaluate the air emissions of industrial land uses to ensure that they will not impact adjacent uses (I10.17, I10.21).
- 10.10.4 Cooperate with the South Coast Air Quality Management District and incorporate pertinent local implementation provisions of the Air Quality Management Plan (I10.17, I10.31).
- 10.10.5 Work with the South Coast Air Quality Management District to establish controls and monitor uses in the City which could add to the air basin's degradation (e.g. auto repair, manufacturers) (I10.16, I10.17).

- 10.10.6 Purchase City vehicles that use energy efficient fuel and minimize air pollution (I10.23).

Objective

It shall be the objective of the City of San Bernardino to:

- 10.11 Reduce the amount of vehicular emissions in San Bernardino.

Policies

It shall be the policy of the City of San Bernardino to:

- 10.11.1 Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services and provides, to the fullest extent possible, local job opportunities and commercial service to minimize vehicular travel and associated air emissions (I10.17 and I10.19).
- 10.11.2 Designate lands for the development of new uses which increase the jobs-housing balance, to the fullest extent possible (I10.17).
- 10.11.3 Disperse urban service centers (libraries, post offices, social services, etc.) to minimize vehicle miles traveled and the concomitant dispersion of air pollutants (I10.17 and I10.24).
- 10.11.4 Implement the installation of streetscape improvements and other amenities to encourage pedestrian activity in key City areas to reduce vehicular travel and associated air emissions (I10.28).
- 10.11.5 Facilitate the development of centralized parking lots and structures in commercial districts to promote walking between individual businesses in lieu of the use of automobiles (I10.29).
- 10.11.6 Establish development standards that concentrate new commercial buildings in proximity to existing commercial buildings and pedestrian areas in order to facilitate walking and to reduce vehicular trips (I10.16 and I10.28).
- 10.11.7 Consider implementing a shuttle system that will connect the Tri-City/Commercenter, Downtown Area, and Regional Opportunities Corridor (I10.29).

- 10.11.8 Require new development to implement or participate in transportation demand management programs which provide incentives for car pooling, van pools, and the use of public transit and employ other trip reduction techniques (consistent with the Circulation Element and South Coast Air Quality Management Plan) (I10.20).
- 10.11.9 Continue to cooperate with Omnitrans and the Rapid Transit District to expand as necessary the comprehensive mass transit system for the City to reduce vehicular travel (I10.29).
- 10.11.10 Consider developing a program to restrict the use of automobiles during Stage 2 or higher air quality alerts (I10.18).
- 10.11.11 Inform the City residents regarding the Department of Motor Vehicle standards to minimize automobile emissions (I10.26).
- 10.11.12 Promote the use of public transit and alternative travel modes to reduce air emissions (I10.22 and I10.25).
- 10.11.13 Provide incentives for existing buildings to retrofit and require new buildings to incorporate low polluting energy systems (I10.27).

Objective

It shall be the objective of the City of San Bernardino to:

- 10.12 Participate in regional initiatives and programs to improve the South Coast Basin's air quality.

Policy

It shall be the policy of the City of San Bernardino to:

- 10.12.1 Work with the other local cities in the South Coast Air Basin to implement regional mechanisms to reduce air emissions and improve air quality (I10.29 and I10.30).

IMPLEMENTATION

Ordinances and Standards

- I10.15 During clearing, grading, retrofitting, and new construction, the City shall consider establish an ordinance to control fugitive dust by regular watering, paving construction roads or other dust preventative measures. The ordinance will require the following: maintenance of construction equipment engines to minimize emissions and maximize fuel economy, phasing and scheduling construction activities to avoid high ozone days, and the discontinuance of construction activities to avoid high ozone days.
- I10.16 Building permit applications will include energy calculations pursuant to Title 24 of State law.
- I10.17 Amend the Development Code to implement the Land Use Plan and policy contained in the Land Use Element which increases the jobs-housing balance and provides for the development of residential uses in close proximity to employment and commercial services. Additionally, the Code shall prohibit uses which significantly degrade the air quality (e.g., "smokestack manufacturing"), where mitigation measures are infeasible.
- I10.18 Study the possibility of limiting the use of automobiles during Stage Two or higher smog alerts.
- I10.19 Review the City's parking ordinance to consider the appropriateness of requiring the common use of parking lots and structures by adjacent independent commercial developments.

Development Permit Review

- I10.20 As a condition of approval for commercial and industrial projects, the City shall institute a Transportation Demand Management Program, in accordance with provisions of the Circulation Element.
- I10.21 The City shall evaluate the location and air quality impacts of industrial uses and require any necessary mitigation to ensure that they do not adversely affect adjacent residential uses, during the development review process.

Administrative

- I10.22 The City shall consider a program to encourage the use of bicycles to reduce vehicular traffic as discussed in the Circulation Element.
- I10.23 Conduct a study to determine the feasibility of the City's use of vehicles which are powered by engines using methanol or other alternative clean-burning energy source. If possible, the City's fleet should be replaced by such non-polluting vehicles, as they are normally retired.
- I10.24 The City shall determine the air pollution impacts involved in proposed City service buildings during the development review process.
- I10.25 The City shall consider providing information to the public regarding local public transit opportunities, van pool and car pool programs and other vehicular trip reduction programs. This shall be accomplished by newsletters, cable television, and other appropriate techniques.
- I10.26 The City shall consider educating its residents, through cable television programs and newsletters, regarding the Department of Motor Vehicles motor vehicle inspection and maintenance requirements to keep motor vehicles tuned-up and minimize emissions.
- I10.27 The City, in cooperation with utility companies, shall consider establishing incentives (e.g., low interest loans or grants) for retrofitting existing buildings with efficient energy and low pollutant systems and require their use in new buildings; as defined by the California Energy Commission, the Federal Solar Energy Research Institute and Rocky Mountains Institute's Resource Efficient Housing Guide.
- I10.28 Institute a program of public streetscape improvements, as outlined in the Urban Design for Public Spaces Element, in the downtown, selected districts, and other areas as deemed appropriate to increase pedestrian activity and reduce automobile trips and air emissions.

Interagency Coordination

- I10.29 Work with Omnitrans, the Southern California Rapid Transit District, San Bernardino Association of Governments and private property owners, as appropriate, to improve public transportation facilities and reduce emissions, including the installation of bus stops and turnouts where required and establishment of a shuttle between major centers in the City that may reduce the one vehicle with one-driver-only travel. The effectiveness of public transportation can be monitored by rider census.

- I10.30 The City and the California Department of Transportation traffic engineers shall work cooperatively to maximize traffic flow improvements where state highways transition into the City's streets.
- I10.31 The City shall confer annually with representatives of the South Coast Air Quality Management District to review Federal and State requirements and the AQMD, and identify means by which the City can participate to improve air quality.
- I10.32 In cooperation with regional agencies, formulate and initiate a comprehensive program for the City of San Bernardino to improve public transportation systems and reduce vehicular air emissions.

11.0 ENERGY AND WATER CONSERVATION

BACKGROUND DATA AND ANALYSES

Most traditional energy resources, consumed by land uses of the City are imported. There are no wells producing oil or natural gas, coal deposits, refineries and processing facilities, or generating stations within the City of San Bernardino planning area. Natural gas is imported by the Southern California Gas Company from its interstate system. Electrical energy is accessed by transmission and distribution lines from the Southern California Edison Company.

Geothermal wells and springs and a hydroelectric facility in Devils Canyon constitute the local energy resources. There are approximately 90-100 identified source sites in the planning area. Currently the City of San Bernardino Municipal Water Department (SBMWD) has two geothermal production wells equipped to pump 4,300,00 gallons of hot water per day and is providing heat to a number of City, County, and State agencies, as well as private businesses.

The planning area's water is supplied principally by groundwater from the underlying aquifer. It is supplemented by filtered and treated stream water and State Water Project water which can be percolated into the groundwater basin to maintain its level.

As has been clearly demonstrated in recent years, non-renewable sources of energy are extremely limited and water supply is affected by variable periods of rain and drought and lack of overall resources in southern California to meet local needs. These problems have been exacerbated by our society's wasteful consumption of the resources. Sprawling urban development which necessitates extensive automotive travel consumes vast quantities of oil and gasoline. Structures with large areas of exposed glass require extensive air conditioning in the summer and heating in the winter.

It is evident that human-kind's continued and future activities are dependent on conservation of existing and development of new resources. Urban patterns which reduce the reliance upon the automobile and total vehicle miles traveled and structure designs which reduce heat gain and loss are essential as conservation techniques. Exploitation of new or under-utilized resources should be pursued. San Bernardino's climate, with its numerous clear and hot days, makes it particularly suitable for solar access for heating and, when technologically and economically feasible, electrical generation.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for energy and water conservation in the City of San Bernardino. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "I" and number parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 11A Conserve scarce energy and water resources.

Objective

It shall be the objective of the City of San Bernardino to:

- 11.1 Reduce the rates of energy and water consumption in the City of San Bernardino through architectural design, use of efficient utility systems, trip reduction, and other techniques.

Policies

It shall be the policy of the City of San Bernardino to:

- 11.1.1 Coordinate and monitor the City's water conservation efforts in the City; reviewing programs annually and modifying or expanding them as necessary to ensure their effectiveness (I11.1, I11.7).
- 11.1.2 Require the incorporation of water and energy conservation features in the design of all new construction and site development as required by State law (I11.2, I11.4, and I11.6).
- 11.1.3 Evaluate the means of establishing an appropriate program by which energy efficient fixtures and energy-saving design elements can be installed in existing multi-family residential, commercial, and industrial developments (I11.3).
- 11.1.4 Require energy audits of existing public structures and encourage audits of private structures, identifying levels of existing energy use and potential conservation measures (I11.7 and I11.8).
- 11.1.5 Provide incentives for the installation of energy conservation measures in existing buildings characterized by a high level of energy consumption, including technical assistance and possible low-interest loans (I11.7 and I11.8).

- 11.1.6 Require the use of passive design concepts in accordance with State Law which make use of the natural climate to increase energy efficiency (I11.2, I11.5, and I11.6).
- 11.1.7 Require through the development review process that new development consider the ability of adjacent properties to utilize energy conservation design (I11.1).
- 11.1.8 Consider the establishment of a rebate program for the replacement of aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing (I11.9).
- 11.1.9 Educate the public regarding the need for energy conservation, techniques which can be employed, and systems which are available (I11.6).
- 11.1.10 Require that new City buildings be energy efficient (I11.7).
- 11.1.11 Work with other cities and the League of California Cities to develop a strong state-wide water conservation policy which involves agricultural as well as urban uses (I11.10).
- 11.1.12 Provide funding to support energy and water conservation programs, as it is available (I11.11).
- 11.1.13 Encourage the use of reclaimed water for landscape irrigation and other non-contact uses for industrial projects, golf courses, and freeways (I11.16).

Goal

It shall be the goal of the City of San Bernardino to:

- 11B Manage and protect the quality of the City's surface waters and groundwater basins.

Objective

It shall be the objective of the City of San Bernardino to:

- 11.2 Ensure that land use development does not degrade the City's surface waters and groundwater basins.

Policies

It shall be the policy of the City of San Bernardino to:

- 11.2.1 Require that development in the City's watersheds, high groundwater areas, and areas with highly permeable soils does not degrade the surface and groundwaters (I11.12).
- 11.2.2 Prohibit the direct discharge of commercial and industrial wastes into the groundwater basin (I11.12).
- 11.2.3 Require that new and existing commercial and industrial uses which involve the use of toxics, hazardous materials, or other products control their operations to prevent degradation of the groundwater basins (I11.12).
- 11.2.4 Establish programs to mitigate degradation of the groundwater basins which may have already occurred by existing commercial, industrial, and other uses (I11.13, I11.15).
- 11.2.5 Prohibit the development of septic systems in areas of high groundwater unless it can be demonstrated that degradation will not occur (I11.12).
- 11.2.6 Promote the replacement of existing septic systems with linkages to a sanitation collection and treatment system in areas of high groundwater with the highest priority given to areas where degradation is known to be caused by the use of septic systems (I11.13, I11.14).

Objective

It shall be the objective of the City of San Bernardino to:

- 11.3 Ensure that surface storm drainage runoff does not adversely impact the groundwater basins.

Policies

It shall be the policy of the City of San Bernardino to:

- 11.3.1 Require that new development incorporate improvements to channel storm runoff to public storm drainage systems and prevent discharge of pollutants into the groundwater basins consistent with the policies in Section 7.0, Utilities, and Section 16.0, Flooding (I11.12).

- 11.3.2 Require that development in the City's watersheds incorporates adequate landscape and groundcover to prevent slope erosion and significant sedimentation of canyon drainages (I11.12).

IMPLEMENTATION PROGRAMS

The following lists the programs to implement the energy and water conservation policies contained in the preceding subsection of the plan. The capital "I" and numbers preceding each program are referenced by the policies which it implements.

- I11.1 Incorporate the following in the City's Development Code:
- a. Guidelines and standards for new development which provide for and maintain opportunities for solar access, and incorporate these into the design review process (considering the definition of possible solar envelopes, as a function of building height, bulk, and siting/orientation).
 - b. Requirements for the use of drought-resistant and low-water using plant species in site landscape.
 - c. Requirements of new uses which consume very high levels of water and/or energy to be evaluated according to the means by which these levels can be reduced and, if not possible, their benefit to the City as an appropriate use (including public review).
- I11.2 Incorporate State requirements (Government Code Section 66473.1) for the use of energy efficient fixtures and energy-saving design elements in new construction.
- I11.3 The City shall evaluate the means and establish an appropriate program by which energy efficient fixtures and energy-saving design elements can be installed in existing multi-family residential, commercial and industrial uses.
- I11.4 Prepare an approved plant list of drought-tolerant and low-water using species for distribution to designers of project landscape plans.
- I11.5 Allow for the use of alternative energy systems provided that they meet all public safety, health, and welfare requirements and are proven to be reliable. If necessary, backup systems should be required.
- I11.6 Establish public education programs to promote energy conservation.
- I11.7 Continue energy audits on all existing City buildings identifying levels of existing energy use and potential conservation measures.
- I11.8 Cooperate with Southern California Edison, the Southern California Gas Company to initiate and facilitate programs for energy audits of existing structures. These should define the current levels of use, compare these to

- current standards for similar types of structures, and prescribe corrective methods to improve conservation. The City should initiate programs which facilitate the retrofitting of existing buildings and required improvements.
- I11.9 Coordinate with the water agencies serving San Bernardino to establish possible rebate programs for property owners who upgrade defective plumbing based on the availability of State and Federal funding.
- I11.10 Participate with other cities and the State of California in programs to develop state-wide water conservation policy which involves agricultural and urban uses. City codes and ordinances should be periodically renewed and revised, as necessary, to reflect such policy and available "state-of-the-art" conservation technologies.
- I11.11 Solicit state and federal funds to implement the City's energy and water conservation programs as such revenue is available.
- I11.12 Incorporate standards and regulations in the Development Code which prevent degradation of surface waters and the groundwater basins, including the following:
- a. prohibition of the discharge of toxics and other pollutants into watershed drainages and the groundwater basins;
 - b. prohibition of the use of septic systems in areas that have high groundwater and high soil permeability;
 - c. inclusion of measures to stabilize slopes in mountain watershed areas; and
 - d. inclusion of on-site improvements to channel storm runoff to public storm drainage infrastructure.
- I11.13 The City shall work with the appropriate agencies to formulate a program to install wastewater collection systems in existing developed areas of high groundwater and high soil permeability. Priorities for improvements shall be given to areas where groundwater degradation has been experienced related to septic systems.
- I11.14 The City shall coordinate with the County of San Bernardino to formulate a program requiring the installation of dry sewers in all areas within the City's sphere of influence for new development that is permitted to utilize septic systems.

- I11.15 The City shall cooperate with all responsible agencies in continuing programs to protect and manage the groundwater basins and recharge areas for the basins; including San Bernardino Valley Municipal Water District, San Bernardino County Flood Control District, State of California Department of Health Services, County of San Bernardino Department of Environmental Health Services and all other federal, state and local agencies.
- I11.16 Continue to work with the San Bernardino Municipal Water Department to expand the program for the use of reclaimed water for landscape irrigation and other non-contact uses.

C H A P T E R F O U R

H A Z A R D S



12.0 GEOLOGIC AND SEISMIC

BACKGROUND DATA AND ANALYSIS

California State law [Government Code Section 65302(1)] requires that each city prepare and adopt a Safety Element as follows:

A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides...; subsidence and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peakload water supply requirements and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

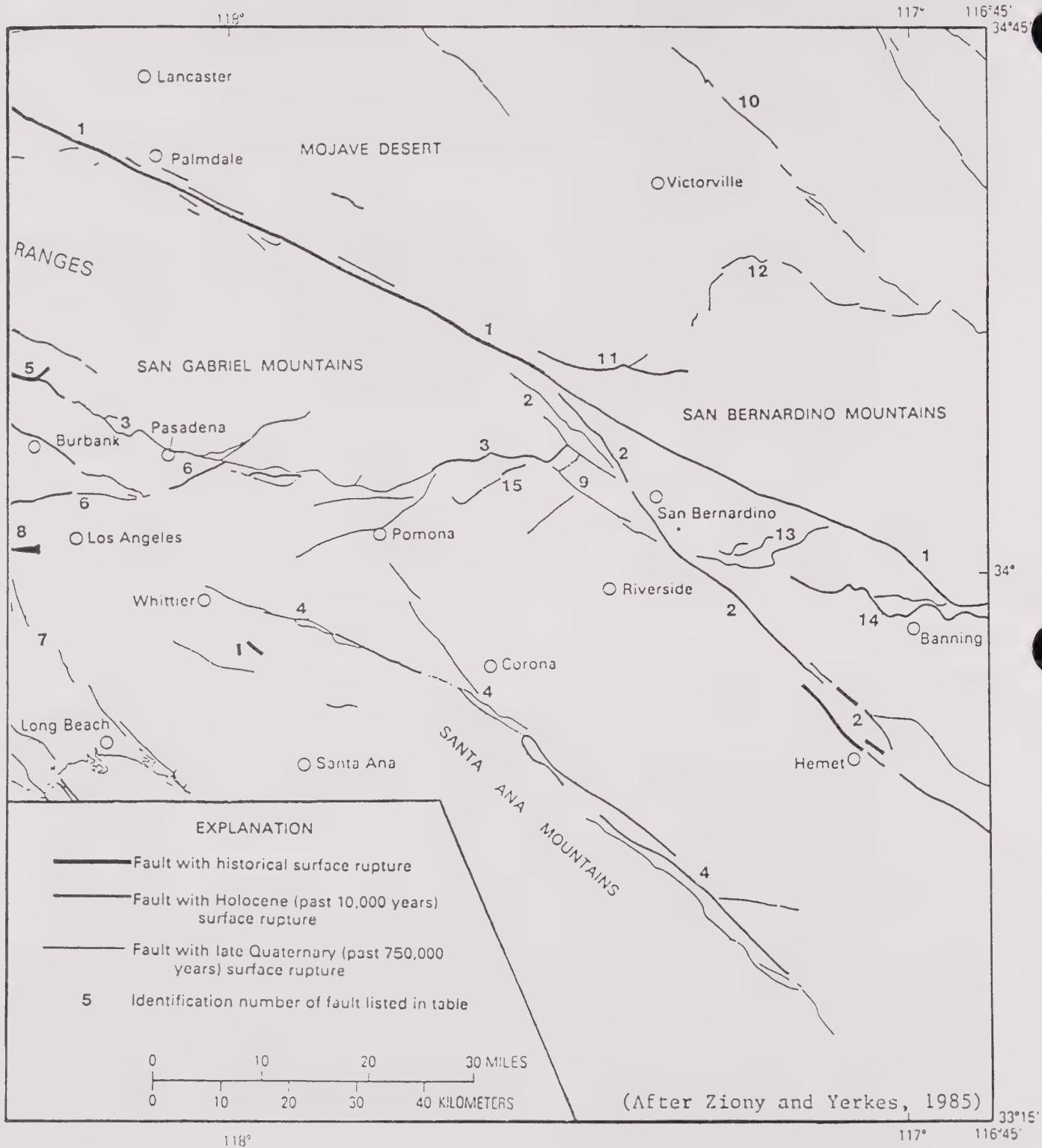
The primary geologic and seismic hazards that could potentially affect the San Bernardino planning area include fault rupture and ground shaking. Both of these hazards could in turn trigger liquefaction and slope instability in susceptible areas.

A. STRONG GROUND SHAKING

The City of San Bernardino planning area lies in a region where numerous faults are capable of generating moderate to large earthquakes. The major faults are related to the San Andreas system which generate earthquakes as blocks on either side of the fault plane slide laterally past one another. Subsidiary faults, which may have developed from complicated stresses within the San Andreas system, generate earthquakes as blocks on either side of the fault plane slide up or down relative to each other. The regional faults that may generate earthquakes or surface rupture in a portion of southern California potentially affecting San Bernardino are mapped in Figure 45. These faults are subdivided into categories of faults with historical (past 200 years) surface rupture, faults with Holocene (past 10,000 years) surface rupture, and faults with late Quaternary (past 750,000 years) surface rupture. Specific characteristics of these faults are summarized in Table 34. Damaging earthquakes could also occur on many other faults in the region but their distance from the San Bernardino planning area or magnitude limitations suggest that the resulting ground shaking and related damage would be less than is anticipated for most of the faults in Table 34. However, it is important to note that earthquake activity from unmapped subsurface faults is a possibility that is currently not predictable.

Regional studies have suggested that various intensities of damage could be caused by either a maximum credible earthquake of 8.5 magnitude on the San Andreas Fault system, a maximum credible earthquake of 7.5 magnitude on the San Jacinto Fault system,

FIGURE 45

FAULTS THAT MAY GENERATE
DAMAGING SURFACE RUPTURE

Faults that may generate damaging earthquakes or surface rupture in the Los Angeles region. The latest surface displacements on these faults are known to have occurred either during historical time (since 1769 for southern California), during Holocene time, or during late Quaternary time. Identification numbers are keyed to table which lists the faults and summarizes their geologic and seismologic character.

Table 34

SIGNIFICANT FAULTS POTENTIALLY AFFECTING THE CITY OF SAN BERNARDINO

FAULT NAME/ MAP NUMBER	MAXIMUM CREDIBLE EARTHQUAKE MAGNIT./PEAK g's CENTRAL CITY		MAXIMUM PROBABLE EARTHQUAKE MAGNIT./PEAK g's CENTRAL CITY		DISTANCE FROM CENTRAL CITY (MILES)	FAULT LENGTH (MILES)	RECENTY OF ACTIVITY	SLIP RATE MM/YR	RECURRENCE INTERVAL ALONG FAULT/YEARS PER MAGNITUDE		
									6.0	7.0	8.0
San Andreas/1	8.5	.65+	8.0	.64	4	650	Historic	20-30	.3-1	3-10	40-100
San Jacinto/2 (includes Glen Helen and Loma Linda(1))	7.5	.72+	7.0	.70	1	270	Holocene	8-12	4-10	40-100	400-1000
Cucamonga- Sierra Madre/3	6.5+	.30+	6.5	.30	10	54	Holocene	3-8	30-100	100-300	800
Whittier- Elsinore/4	7.5(?)-.30 7.0		6.5	.12	25	120	Historic	4	20-90	200-900	3000- 9000
San Fernando/5	7.0	6.05	6.5	.05	64	9	Historic	7-8	100-300	?	?
Hollywood- Raymond Hills/6	7.0	.08	6.5	.05	42	25	Holocene	<1	400+	1500+	--
Newport- Inglewood/7	7.0	.05	6.5	.05	57	80	Historic	1	200	900	--
Santa Monica/8	7.0	<.05	6.5	<.05	70	24	Holocene	<1	400	1500	--
Rialto- Colton/9	6.5	.52	--	--	4	16	Late Quat.	<1	400	1500	--
Melendale/10	7.0	.10	--	--	38	54	Holocene	<1	400	1500	--
Cleghorn/11	6.7	.27	--	--	13	14	Prob. Holocene	1-2	200	900	--
North Frontal/12	7.0	.28	--	--	17	30	Late Quat.	<1	400	1500	--
Crafton/13	6.4	.36	--	--	7	5	Late Quat.	1-2	200	900	--
Banning/14	6.9	.28	--	--	16	27	Holocene	1-2	200	900	--
Red Hill/15	6.5	.30	--	--	10	9	Holocene	<1	400	900	--

Significant faults potentially affecting the city of San Bernardino Area.

a maximum credible earthquake of 6.5 magnitude on the Cucamonga-Sierra Madre Fault system, or a maximum credible earthquake of 7.5 magnitude on the Whittier-Elsinore Fault system (Fife and others, 1976). Resultant peak ground acceleration is summarized for the planning area in Figure 46 and Table 34. Regional peak ground accelerations for the planning area include .80+g-.57g from the San Andreas Fault system, .70+g-.50g for the San Jacinto Fault system, .58g-.35g for the Cucamonga-Sierra Madre Fault system, and .30g for the Whittier-Elsinore Fault system (Figure 46). Correlation of the regional ground acceleration values with expected intensities of damage can be highly variable due to site specific foundation characteristics and building design. However, peak ground accelerations may contribute less to cumulative damage potential than repeatable cycles of less intense shaking.

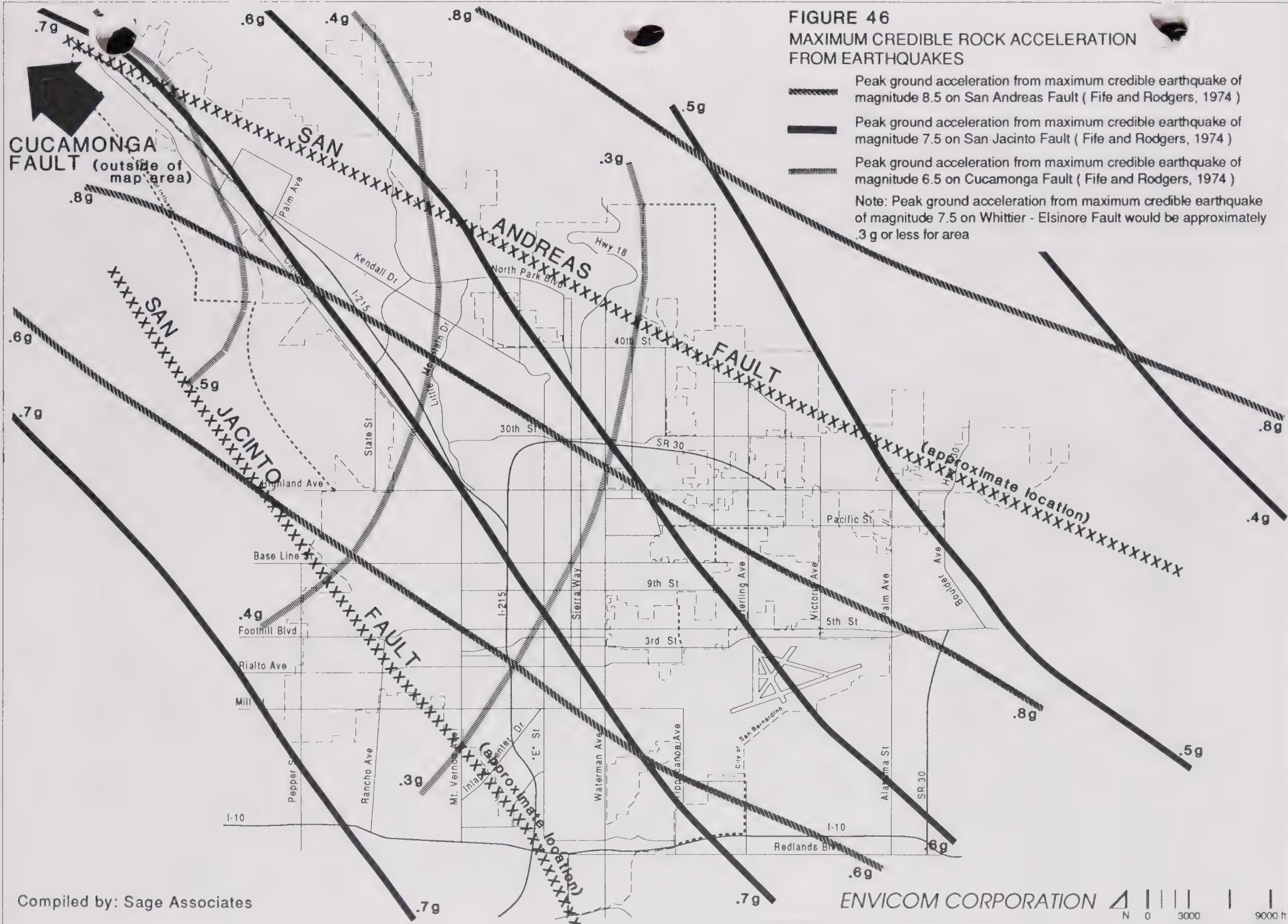
In most areas of the City of San Bernardino the specific character of the surface and subsurface earth materials is quite variable. Site specific conditions can modify regional ground acceleration, earthquake intensities (damage), and durations of ground shaking. For example, the approximate relationships between maximum accelerations on rock and other local site conditions can show a downward variability of up to about .25g when certain specific types of soil conditions are compared to rock. Furthermore, analysis of 27 site-specific City of San Bernardino areas geotechnical reports shows consistently lower ground acceleration values when compared to regional studies. The variability is probably due to different maximum credible earthquake magnitudes used in specific studies, plus different subsurface and surface materials encountered in trenches and borings, and actual recorded depths to groundwater. Standardization of site specific report formats and utilization of up-to-date regional data would be valuable in reducing ground acceleration discrepancies between reports done in close geographic proximity. Regional analyses utilized in this report should not take the place of standardized site-specific geotechnical ground shaking analysis. However, regional studies are valuable planning tools in the sense that they provide information as to which areas are potentially more hazardous and these areas should be designated for site-specific study as land use policy is developed.

B. FAULTING

The California Division of Mines and Geology has designated certain faults within the San Bernardino planning area as part of the State of California Alquist-Priolo Special Studies Zones. The Alquist-Priolo Special Studies Zones Act was signed into law in 1972. The purpose of the Act is to prohibit the location of most structures for human occupancy across the traces of the active fault within the Special Studies Zones, thereby mitigating the hazard of fault rupture. Unless proven otherwise, the area within 50 feet of an active fault is presumed to be underlain by that fault. The State encourages public agencies to adopt more restrictive offset criteria for "critical" facilities like hospitals and schools. Any fault along which there has been surface displacement during the last 11,000 years (Holocene Epoch) is defined by the California State Mining and Geology Board as an active fault. These faults are considered to be those most likely for renewal movement during the lifetime of any structures in a particular project and may be a possible source for surface ground displacement. In addition, the Alquist-Priolo Act

FIGURE 46
MAXIMUM CREDIBLE ROCK ACCELERATION
FROM EARTHQUAKES

Peak ground acceleration from maximum credible earthquake of magnitude 8.5 on San Andreas Fault (Fife and Rodgers, 1974)
 Peak ground acceleration from maximum credible earthquake of magnitude 7.5 on San Jacinto Fault (Fife and Rodgers, 1974)
 Peak ground acceleration from maximum credible earthquake of magnitude 6.5 on Cucamonga Fault (Fife and Rodgers, 1974)
 Note: Peak ground acceleration from maximum credible earthquake of magnitude 7.5 on Whittier - Elsinore Fault would be approximately .3 g or less for area



also requires the State Geologist to establish Special Studies Zones to encompass all potentially active fault traces of the San Andreas and San Jacinto Faults. Potentially active faults are those that show evidence of surface displacement during Quaternary time (the last two million years).

Special Studies Zones boundaries extend approximately 500 feet away from major active faults and about 200 to 300 feet away from well defined minor faults. Site specific geologic reports are required for developments within these Zones in order to ascertain the precise location of, and setbacks from, any active faults. In addition, active faults may also exist outside the Zones on any Zone map. Therefore, fault investigations are recommended for critical and important developments proposed outside the Special Studies Zone.

Special Studies Zones for the San Bernardino planning area, and the active faults within these Zones are shown in Figure 47. The San Andreas Fault system, and the San Jacinto Fault system including the Glen Helen and Loma Linda Faults are included within these Zones. Also included in Figure 47 are questionable faults approximately located by Fife and others (1976) as identified in a geologic hazards study of the areas for the California Division of Mines and Geology. The questionable faults paralleling the San Andreas Fault were identified as groundwater barriers underlying certain urbanized portions of the City. Magnetic surveys and seismic evidence suggest the Glen Helen and Loma Linda Faults are one and the same or are part of a narrow fault zone connecting without surface expression under the southwest portion of the City. Because of relatively recent extensive agricultural/urban and natural (floods and sediment accumulation) alteration of the topography, surface expressions of active faults within the planning area are difficult or impossible to locate. For example, excavations in sand and gravel deposits along the active San Jacinto Fault zone yielded aluminum cans as much as 30 feet below the ground surface. In these excavations, 38 feet of undisturbed "modern" alluvium overlies the active San Jacinto Fault zone. Evaluations and evidence of possible ground surface displacements become difficult to evaluate and further work clearly needs to be done in locating subsurface active faults and determining potential for ground surface rupture.

C. LIQUEFACTION

Liquefaction is a process whereby strong earthquake shaking causes sediment layers that are saturated with groundwater to lose strength and behave as a fluid. This subsurface process can lead to near-surface or surface ground failure that can result in property damage and structural failure. During the earthquake, seismic waves travel through the earth and vibrate or shake the ground. In cohesionless granular material having low relative density, the vibration can disturb the particle framework leading to increased compaction of the material and concomitant reduction of pore space between the grains. If the sediment is saturated, water occupying the pore spaces resists this compaction and exerts pore pressure which reduces the contact stresses between the sediment grains. With continued shaking, transfer of intergranular stress to pore space water can generate strength and change from a solid state to a liquefied state. This me-

FIGURE 47

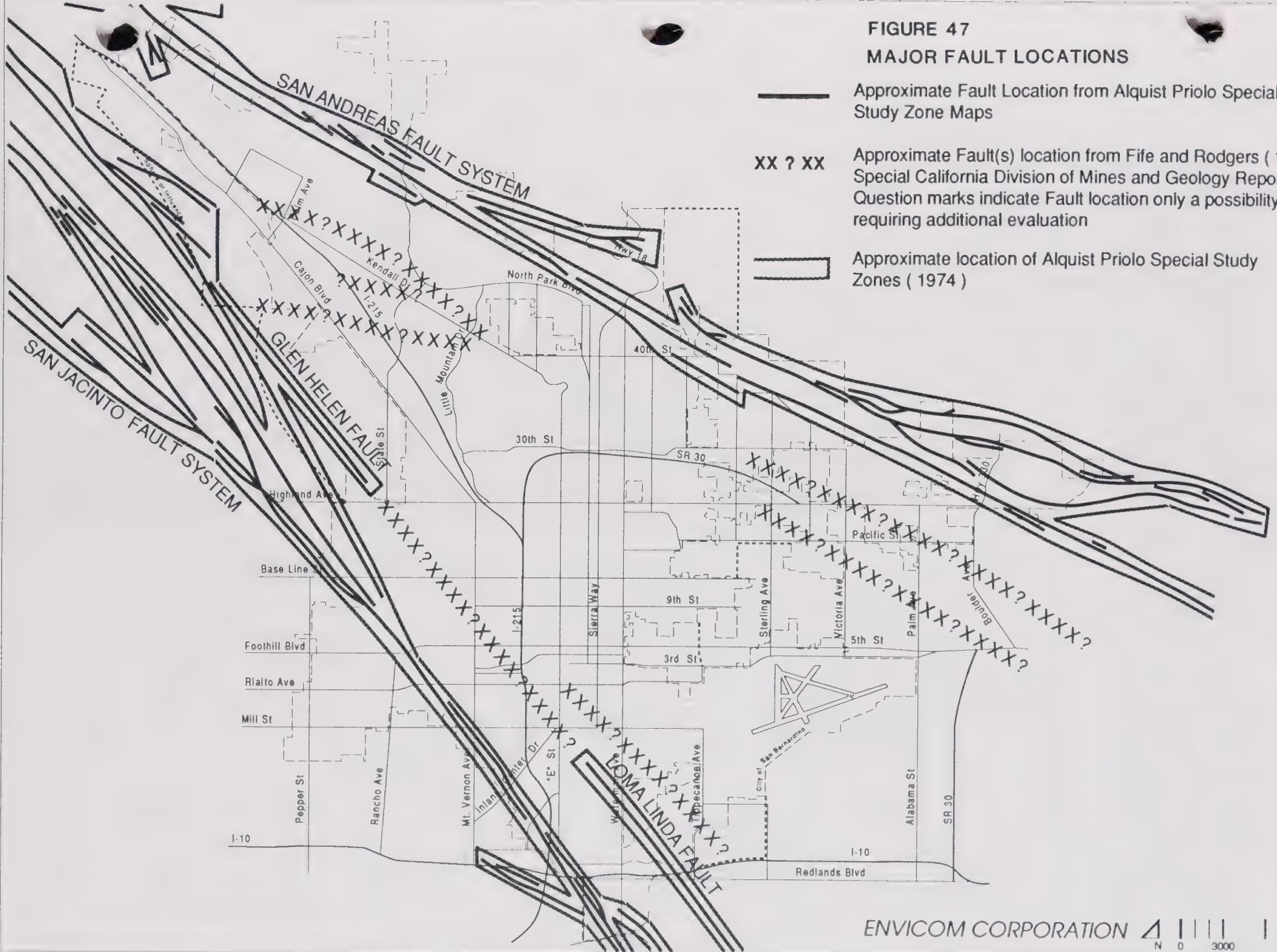
MAJOR FAULT LOCATIONS

Approximate Fault Location from Alquist Priolo Special Study Zone Maps

XX ? XX

Approximate Fault(s) location from Fife and Rodgers (1974)
Special California Division of Mines and Geology Report
Question marks indicate Fault location only a possibility
requiring additional evaluation

Approximate location of Alquist Priolo Special Study Zones (1974)



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N 0 3000 9000 ft

chanical transformation can cause various kinds of ground failure at or near the surface. It is important to note that liquefaction of subsurface water saturated sediment does not always cause surface ground failures. If surface ground failure does occur, it is usually expressed as lateral spreading, flow failures, ground oscillation and/or general loss of bearing strength. Sand boils (injections of fluidized sediment) can commonly accompany these different types of failure.

Groundwater saturation of sediments is required in order for earthquake induced liquefaction to occur. Groundwater depth shallower than ten feet to the surface can cause the highest liquefaction susceptibility. Groundwater ten to 30 feet below the surface can create a moderately high to moderate susceptibility. Groundwater 30 to 50 feet deep can create a moderate to low susceptibility.

The overall regional liquefaction susceptibility categories were developed by Matti and Carson (1986). These categories were determined by analyzing, correlating and ranking regional fault distance intervals, groundwater, and geologic age and textural characteristics. Figure 48 summarizes the regional liquefaction susceptibilities for maximum credible earthquakes occurring on the San Andreas Fault, San Jacinto Fault or Cucamonga Fault. Two general zones, "high" and "moderately-high to moderate" are depicted. High zones are concentrated adjacent to the San Andreas Fault zone north and northeast of the City and in the old artesian area between the San Andreas and San Jacinto Faults in the central and southern parts of the City. These zones delineate regional susceptibility and can vary greatly due to groundwater level changes. In general, the old artesian area will continue to experience the greatest groundwater fluctuations. For example, during years of above normal precipitation, the groundwater levels would be expected to be higher in the old artesian area and dewatering may be necessary to reduce localized flooding and to reduce a potentially high liquefaction susceptibility. Site-specific geotechnical liquefaction reports show a distinct variability when compared to the regional Matti and Carson (1986) report. Site-specific reports are able to fill in data gaps that could not be addressed over a large scale area in a regional study. The site-specific reports often show a lower susceptibility than regional analysis would suggest. This discrepancy may be due to currently lower groundwater levels, coarser or finer grained sediments less susceptible to liquefaction being encountered in soil testing, seismic shaking variability, and actual evaluation of surface ground failure rather than general liquefaction susceptibility. Because of the short-term variability of groundwater conditions and the rapid changes in alluvial textures, standardized site-specific current geotechnical reports are still valuable in determining potential surface ground failures from liquefaction in the high and moderately high to moderate zones. Regional groundwater migration patterns, seasonal precipitation fluctuations, potential for perched water levels, historic high groundwater in artesian and marsh areas, and nature of the permeable and impermeable alluvial materials all point to the continued need for site-specific geotechnical evaluations and possible structural design mitigations for development in the old artesian area and other high and moderately-high to moderate areas where liquefaction susceptibility is most probable.

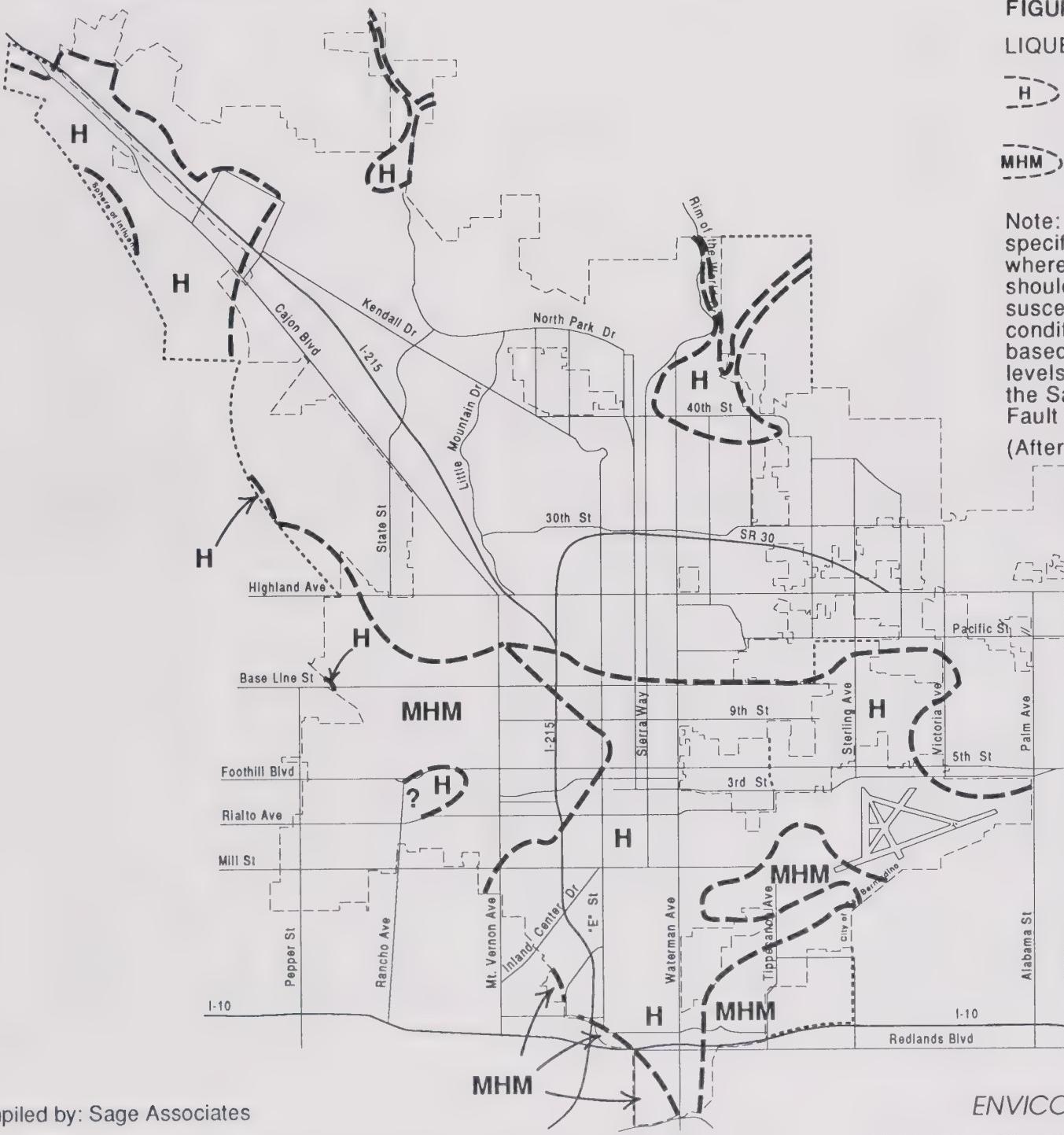


FIGURE 48
LIQUEFACTION SUSCEPTIBILITY

— H — Approximate Location of Areas of High Liquefaction Susceptibility

— MHM — Approximate Location of Areas of Moderately High to Moderate Liquefaction Susceptibility

Note: Not to be used as a substitute for site-specific geotechnical liquefaction studies where liquefaction induced ground failures should be addressed. Boundaries between susceptibility zones will shift if ground water conditions raise or lower over time. Zonations based on sub-surface geology, ground water levels, and maximum credible earthquakes on the San Andreas Fault System, the San Jacinto Fault System and the Cucamonga Fault.

(After Matti and Carson, 1986)



D. HAZARDOUS BUILDINGS

The principal threat in an earthquake is not limited to ground shaking, fault rupture or liquefaction, but the damage that the earthquake causes to buildings that house people or essential function. Continuing advances in engineering design and building code standards over the past decade have greatly reduced the potential for collapse in an earthquake of most of our new buildings. However, many buildings were built in past decades, before some of the earthquake design standards were incorporated into the building code. Several specific building types are a particular concern in this regard.

Unreinforced Masonry Buildings. In the late 1800s and early 1900s, reinforced masonry was the most common type of construction for larger downtown commercial structures and for multi-story apartment and hotel buildings. These were recognized as a collapse hazard following the San Francisco earthquake of 1906, Santa Barbara earthquake of 1925, and again the aftermath of the Long Beach earthquake of 1933.

Following the Long Beach earthquake, seismic requirements were added to local building codes for the first time and the Field Act of 1934 instituted Statewide standards to the vast stock of existing unreinforced masonry buildings.

Today, these buildings are still recognized as the most hazardous buildings in an earthquake, and several jurisdictions have developed programs for the structural strengthening of such buildings. Because of the concentrated development of the San Bernardino planning area by the early 1930s, a substantial number of unreinforced masonry buildings may still exist within the City. The area of most concentrated urban development in 1930 is shown in Figure 49.

Senate Bill 547, recently signed by the Governor of California, requires local jurisdictions to enact structural hazard reduction programs by (a) inventorying pre-1934 unreinforced masonry buildings, and (b) developing mitigation programs to correct the structural hazards. Inventories and mitigation plans must be submitted to the State by January 1, 1990.

Pre-cast Concrete Tilt-up Buildings. This building type was introduced following World War II and gained popularity for use in light industrial buildings during the late 1950s and 1960s. Extensive damage to concrete tilt-up buildings in the 1971 San Fernando earthquake revealed the need for better anchoring of walls to the roof, floor and foundation elements of the building, and for stronger roof diaphragms. In the typical damage to these buildings, the concrete wall panels would fall outward and the adjacent roof would collapse creating a direct life hazard.

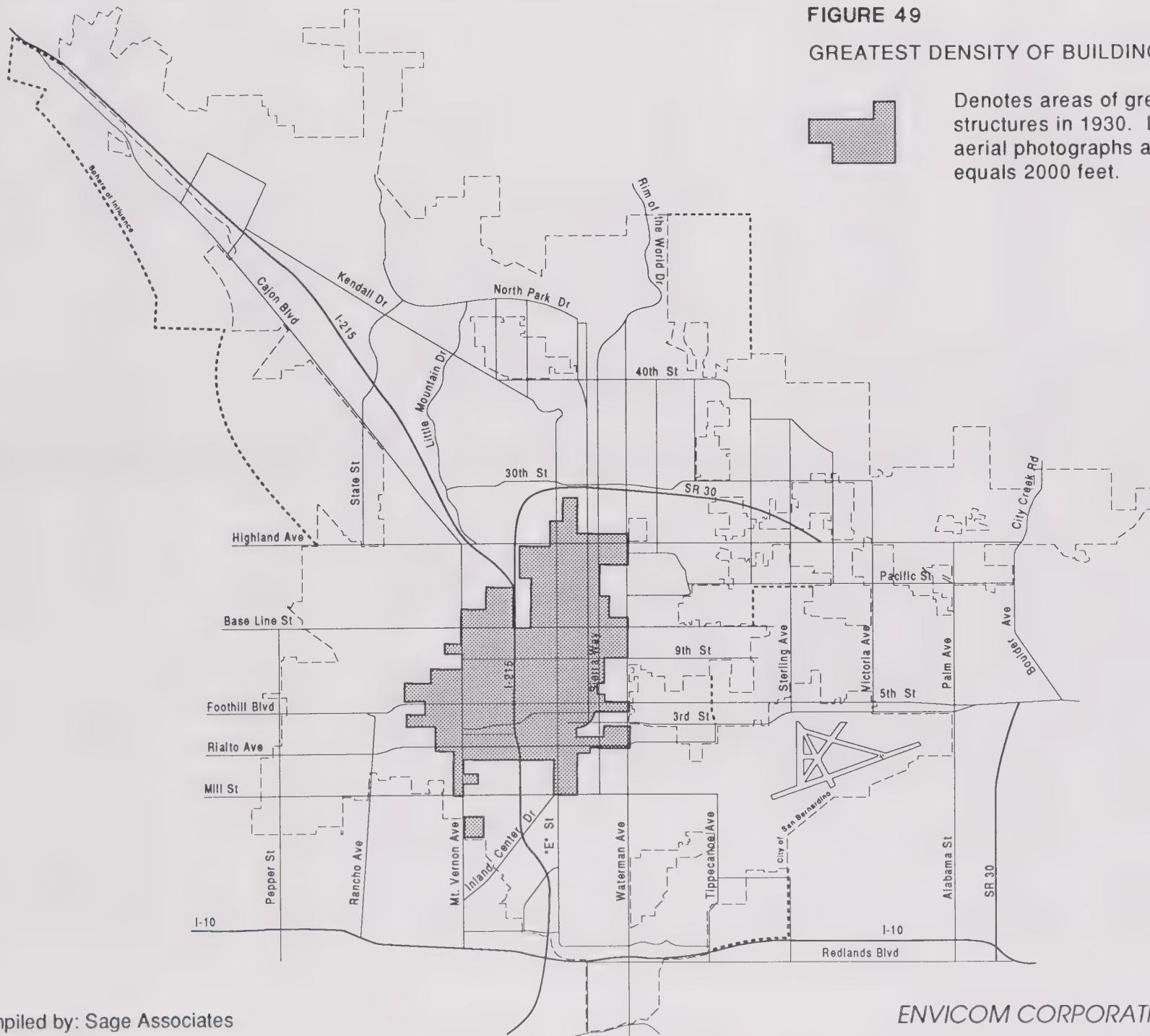
New design standards for tilt-up buildings, developed after the 1971 earthquake, were incorporated into the 1976 Uniform Building Code. However, a large majority of existing tilt-up buildings were designed under the former code standards and may be subject to collapse under strong ground shaking. Light industrial or commercial areas of the City that were developed in the late 1950s and 1960s may contain these types of buildings.

FIGURE 49

GREATEST DENSITY OF BUILDING STRUCTURES IN 1930



Denotes areas of greatest density of building structures in 1930. Data based on 1930 aerial photographs at a scale of one inch equals 2000 feet.



The older tilt-up construction was used primarily for single-story industrial and warehouse buildings with solid wall panels and few or no window openings. However, recent application of tilt-up construction techniques has expanded to two- and three-story commercial retail and mass housing uses, with poor connection details and a high proportion of glass openings in the wall panels. Other adaptations combine concrete, masonry, and cast-in-place concrete in a complex manner that no longer retains the seismic integrity of the original code intent.

Soft-Story Buildings. The failure of the modern Olive View Hospital in the 1972 San Fernando earthquake, as well as the Imperial County Service Buildings in the 1979 Imperial Valley event, led to the repeated recognition of the seismic vulnerability of soft-story construction.

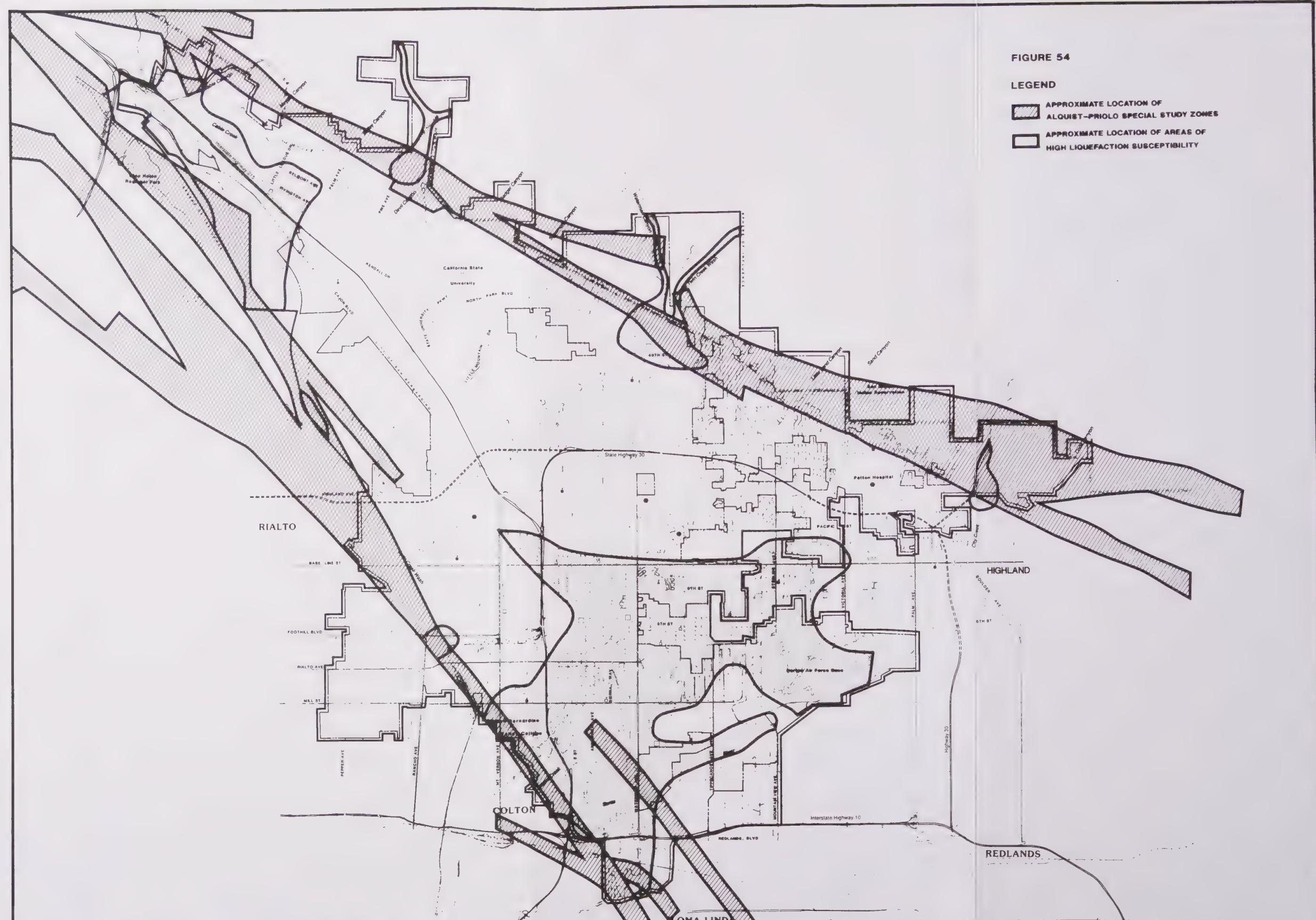
"Soft-Story" buildings are those in which at least one story--commonly the ground floor--has significantly less rigidity and/or strength than the rest of the structure. This can form a weak link in the structure, unless special design features are incorporated to give the building adequate structural integrity. Typical examples of soft-story construction are buildings with glass curtain walls on the first floor only, or buildings placed on stilts or columns, leaving the first story open for landscaping, street-friendly building entry, parking, or other purposes.

In the 1950s to early 1970s, soft-story buildings were a popular construction style for low- and mid-rise concrete frame structures. The San Bernardino planning area may have a number of concrete frame buildings of this vintage, but a structural survey would be needed to determine whether any of them are of soft-story construction. Procedures are currently being developed by the Applied Technology Council for seismic evaluation of these and other types of potentially hazardous buildings.

Non-Ductile Concrete Frame Buildings. The brittle behavior of non-ductile concrete frame buildings can create major damage and even collapse under strong ground shaking. This type of construction, which generally lacks masonry shear walls, was common in the very early days of reinforced concrete buildings, and they continued to be built until the codes were changed to require ductility in the moment-resisting frame (the Uniform Building Code was changed in 1973).

There were large numbers of these buildings built for commercial and light industrial use in California's older, densely populated cities. Many of them are four to eight stories; however, others are in the lower height range. This category also includes one-story parking garages with heavy concrete roof systems supported on non-ductile concrete columns.

The history of construction in the City of San Bernardino spans the dates and uses common for this potentially hazardous building type. However, it is not known whether there are any buildings of this category within the city limits. The Applied Technology



GEOLOGIC HAZARDS OVERLAY

City of San Bernardino General Plan

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**DKS ASSOCIATES • NATELSON - LEVANDER - WHITNEY •
ALBERT A. WEBB ASSOCIATES •
ROSENOW SPEVACEK GROUP, INC. • SAGE ASSOCIATES**

A map section with a scale bar at the top left, labeled "SCALE" above it. The scale bar has markings at 0, 2000', 4000', 6000', and 8000'. To the right of the scale bar is a box containing the word "ACRES" above the number "200". Further to the right is a box containing the word "NORTH" above a black arrow pointing upwards.



Council Methodology under preparation will be of value in evaluating the City's specific vulnerability in this category.

E. CRITICAL, SENSITIVE AND HIGH OCCUPANCY FACILITIES

Some facilities pose a greater degree of importance or risk to the public, and may warrant special standards for a variety of reasons. Three general categories of facilities pertinent to the City of San Bernardino are distinguished for policy purpose:

- "Critical facilities" are those facilities whose continued functioning is necessary to maintain public health and safety following a disaster, and facilities where damage or failure could pose hazards to life and property well beyond their immediate vicinity.
- "Sensitive facilities" include facilities used for the manufacture, storage or sale of hazardous materials, as well as socially significant facilities such as schools, nursing homes, and housing for the elderly, handicapped, or mentally ill.
- "High-occupancy facilities" are public or private structures for housing or assembly of large populations.

The site and design of hospital and public schools falls under the approval authority of the Office of the State Architect, which enforces the State's strong seismic codes for these facilities. The specification and enforcement of seismic standards for other uses is the responsibility of the City. Locations of the above facilities have been identified by City personnel as shown in Figure 50. Utilities, reservoirs, highways and pipelines are also being mapped and will be discussed under policy within the General Plan since all display certain degrees of vulnerability to geologic and seismic hazards.

F. SUBSIDENCE

Historic and potential ground subsidence areas within the San Bernardino planning area are depicted in Figure 51. Up to one foot of subsidence may have already occurred in the above area (Fife and others, 1976). The historic area of subsidence was within the thick poorly consolidated alluvial and marsh deposits of the old artesian area north of Loma Linda. Potential subsidence within this area may be as great as five to eight feet if groundwater is depleted from the Bunker Hill-San Timoteo Basin. Since 1972, the San Bernardino Municipal Water District has maintained groundwater levels from recharge to percolation basins which, in turn, filters back into the alluvial deposits. Problems with ground subsidence have not been identified since the groundwater recharge program began.

G. SLOPE STABILITY

General slope stability is determined by a number of factors including slope, vegetative cover, wildfire, bedrock, soil, precipitation, and human alteration. Slopes may be in

FIGURE 50

CRITICAL, SENSITIVE AND HIGH OCCUPANCY FACILITIES

- Critical Buildings
- High Occupancy Buildings
- Board & Care / Skilled Nursing
- ▲ Senior Citizen Apartments
- Schools
- Libraries
- Hospitals
- ▲ Fire Stations
- ★ Police / Highway Patrol / Sheriff
- ◆ Community Centers

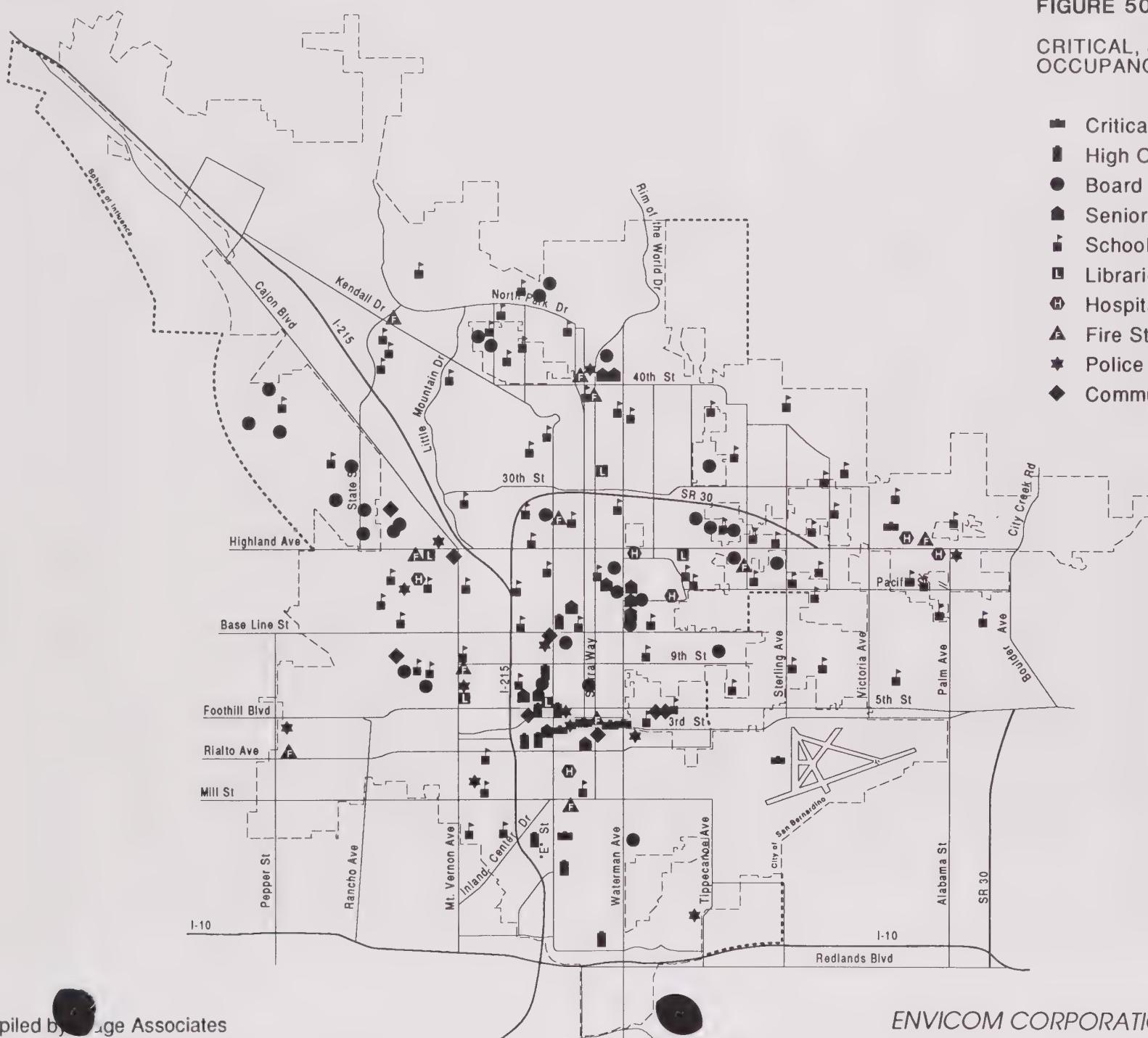
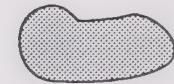


FIGURE 51

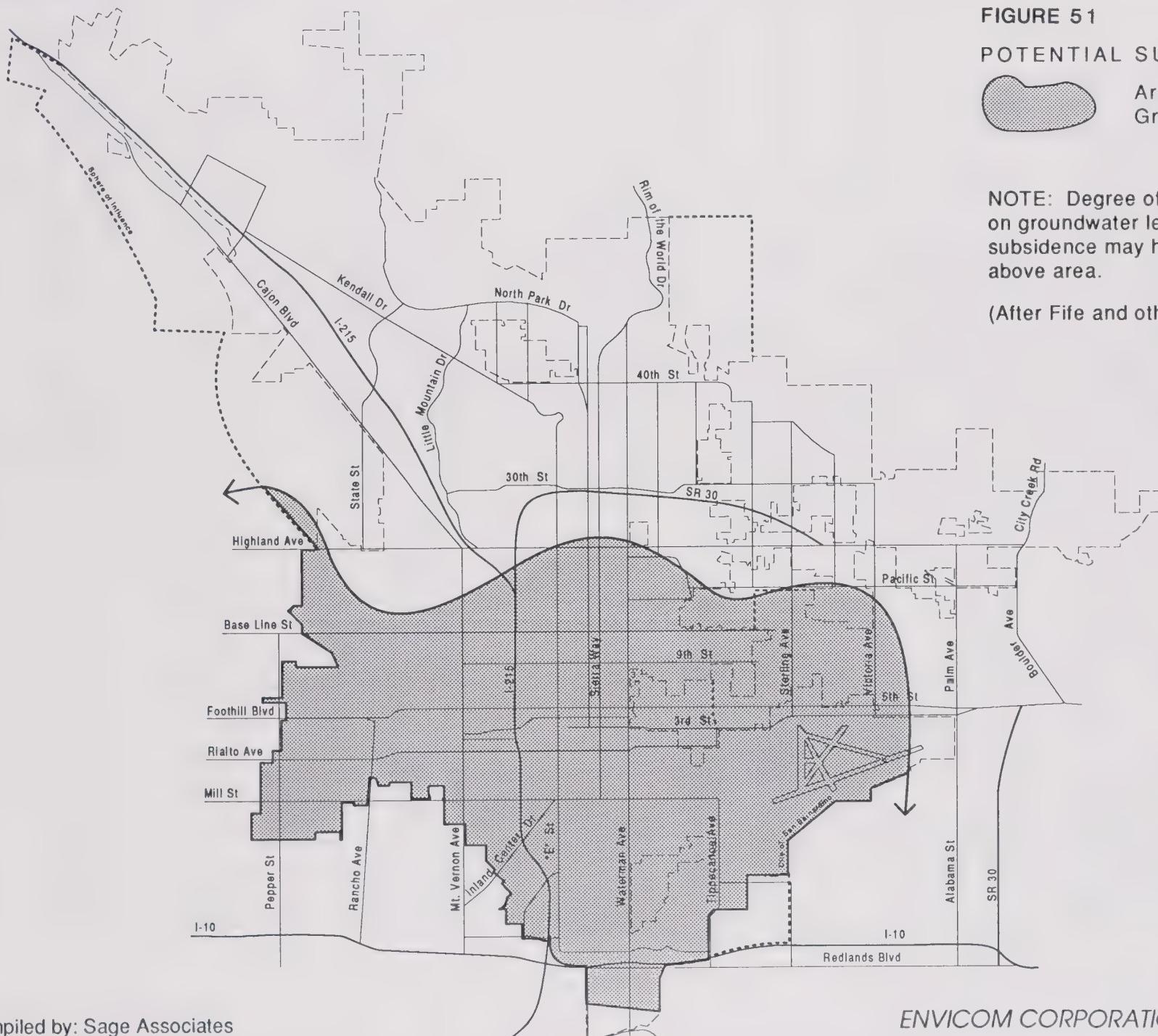
POTENTIAL SUBSIDENCE AREAS



Areas of Potential
Ground Subsidence

NOTE: Degree of subsidence dependent
on groundwater levels. Historic
subsidence may have occurred in
above area.

(After Fife and others, 1976)



temporary equilibrium until one of the above factors is modified by natural or human activity resulting in an unstable condition and potential failure.

Slope stability studies of the San Bernardino planning area were conducted by Morton (1974) and Miller (1979) and include general descriptions of slope areas along with accompanying maps. Generalized slopes are subdivided into areas of low relief, areas of moderate relief, and areas of high relief. Generalized landslide susceptibility is considered low to moderate. A combination of the generalized slope categories and the generalized landslide susceptibility areas results in two broad potentially hazardous zones. These zones are mapped in Figure 52 and include:

- Areas of low relief with low to moderate susceptibility which may contain small-scale surficial soil slips, debris flow and mudflows on steep localized slopes.
- Areas of moderate and high relief with low to moderate susceptibility which may contain small to large rotational slides, debris slide and combinations of surficial slides and flows. These areas contain individual landslides that have been included on the regional slope stability and landslides map.

Potential slope failures in the above areas could be hazardous to buildings, reservoirs, roads, and utilities. Seismic shaking may also include slope failure.

H. WIND AND WATER SOIL EROSION

Twenty-two soil series were identified in the San Bernardino planning area. Potential limitations or hazards associated with some of these soils include wind and water erosion (Figure 53) which can cause dust generation and erosion/siltation in and adjacent to these areas.

I. EMERGENCY MANAGEMENT PLAN

The City of San Bernardino Emergency Plan was prepared by the City's Emergency Services Department. The Plan details the functional responsibilities and interactions of the Federal, State and local governmental agencies as well as private organizations in the event of natural and/or human-related disasters. Included within the natural disaster category are earthquakes, geologic hazards, floods and fires. Potential human-related disasters include hazardous materials incident, nuclear attack and transportation-related accidents.

Within the Emergency Management Plan, potential hazards are described, the possible effects delineated, and recommended mitigations are discussed where applicable. Post-disaster aid, reconstruction and financial assistance are also discussed.

From a seismic safety standpoint, the Plan's Appendix 1-1, Earthquake, describes the general and specific earthquake threat, regional seismic history, proximity to active major fault zones, geologic characteristics and hazards, and possible effects on lifelines

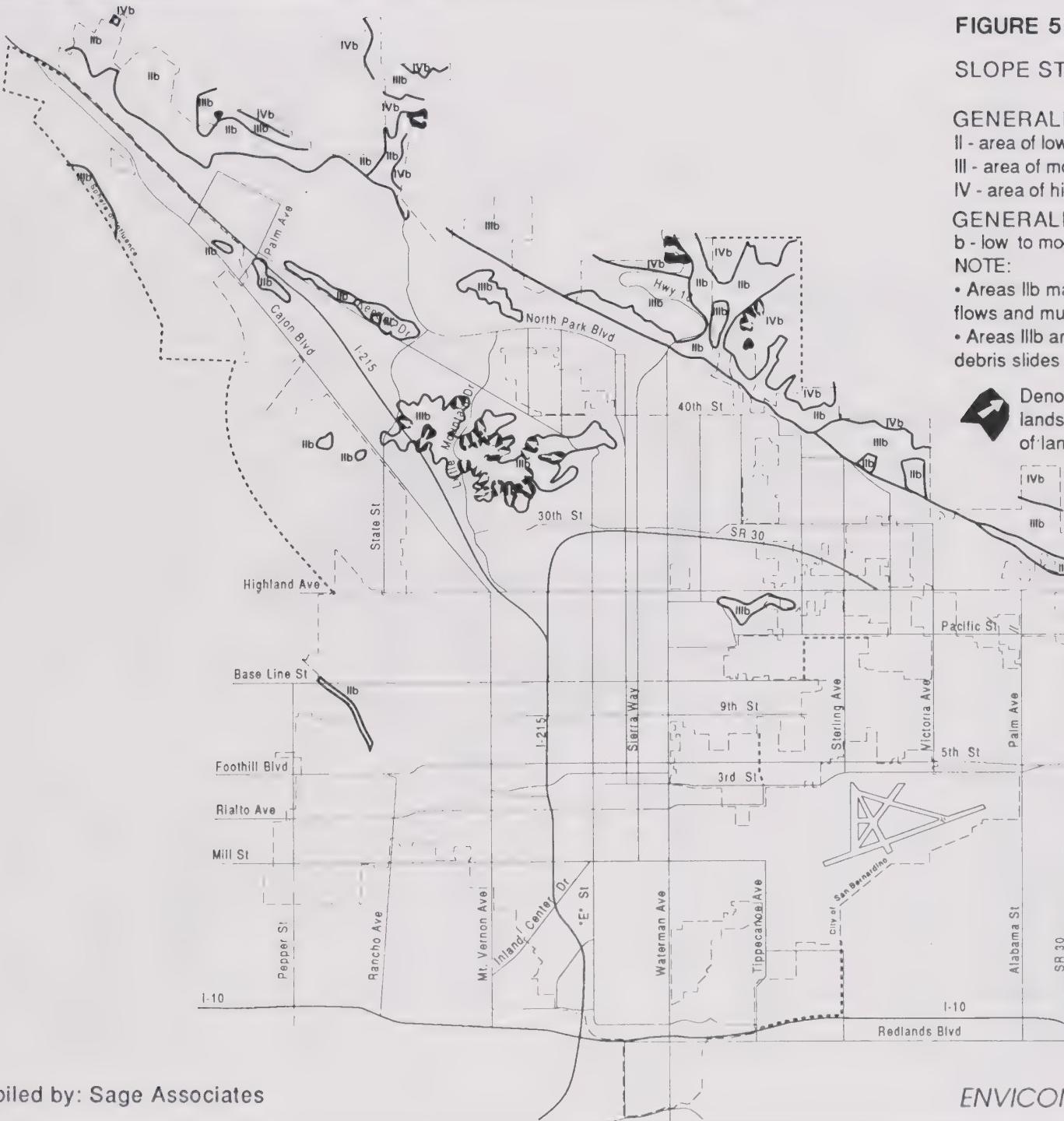


FIGURE 52

SLOPE STABILITY AND MAJOR LANDSLIDES

GENERALIZED SLOPE

II - area of low relief

III - area of moderate relief

IV - area of high relief

GENERALIZED LANDSLIDE SUSCEPTIBILITY

b - low to moderate

NOTE:

- Areas IIb may contain small scale surficial soil slips, debris flows and mudflows on steep local slopes.
- Areas IIIb and IVb may contain small to large rotational slides, debris slides and combinations of surficial slides and flows.



Denotes approximate location and size of individual landslides. Arrows illustrate predominate direction of landslide movement.

(Source: Morton, 1974 and Miller, 1979)



FIGURE 53

SOILS LIMITATIONS

-  Areas of High Potential for Water Erosion
-  Areas of High Potential for Wind Erosion

(After United States Department of Agriculture, 1980)



(transportation corridors, pipelines and utilities). The possible effects on lifelines in the event of a major earthquake in the City of San Bernardino area include:

- Rupture of the petroleum product pipelines south and west of the City. Rupture could result in uncontrollable fires.
- Rupture of the 36-inch natural gas transmission pipeline northwest of Muscoy. Rupture could cause extensive fires and loss of natural gas services to the City for extended periods of time.
- Partial or total disruption of the operations at the Southern California Edison plants in San Bernardino, Loma Linda and Rancho Cucamonga.
- Major to minor damage to the two major southern California Edison substations located in the City.
- Disruption of the water supply caused by a breach in the east branch of the California Aqueduct.
- Disruption or termination of operations at wastewater treatment facilities.
- Disruption or termination of telephone and telecommunications systems for at least three days.
- Closure of major surface transportation routes, including railways, for several weeks to several months.
- Ground failure and damage to runways at Norton Air Force Base.

ISSUES

The City of San Bernardino and its sphere of influence are located in an area of potential fault rupture, strong ground shaking, and liquefaction susceptibility. These geologic and seismic hazards can affect the structural integrity of buildings and utilities, and, in turn, cause severe property damage and potential loss of life.

The potential hazards affecting the City lead to a series of policy issues that need to be considered in the Seismic Safety Element of the General Plan. These issues include, but are not necessarily limited to, the following:

- A. Land uses, such as hospitals, schools, fire stations, high-rise buildings, or large auditoriums are more critical from a safety standpoint, and may, therefore, warrant a higher level of precaution relative to seismic hazards.

- B. Building codes in use in the City need to be assessed to determine if they are sufficient for the high levels of ground shaking anticipated in close proximity to major faults.
- C. Current formats for liquefaction reports and geotechnical reports for Special Studies Zones and high liquefaction areas need to be evaluated for their adequacy.
- D. Existing hillside grading standards and erosion control mitigation measures in the City need to be evaluated for their adequacy.
- E. Questionable faults shown in Figure 47 should be evaluated and a determination made of limitations to be imposed on new development in these areas.
- F. Portions of the planning area lie within high liquefaction zones, posing potential hazards to development.
- G. The planning area contains numerous hazardous, unreinforced masonry buildings, pre-cast concrete buildings, soft-story structures and non-ductile concrete frame buildings in need of seismic mitigation.
- H. Local, State and Federal disaster preparedness resources and mobilization need to be better coordinated to assure adequate preparedness in the event of a major seismic event.

GOALS, OBJECTIVES, POLICIES, AND PROGRAMS

OVERVIEW OF GEOLOGIC AND SEISMIC HAZARDS, POLICIES AND PROGRAMS

The City's policies and programs for geologic/seismic hazards are intended to reduce death, injuries, damage to property and economic and social dislocation due to earthquakes and related geologic hazards, as well as to enhance the preparedness of City agencies and the community in general to survive, respond to, and recover a major earthquake.

Effective implementation of seismic policies requires a continuing awareness and expanding knowledge of the seismic hazards affecting the City; strong, enforceable seismic standards for the siting, design and review of proposed development; and progressive City-wide programs for disaster preparedness and recovery planning.

Site-specific investigation of geologic and soils conditions are the primary means of hazard evaluation and an important basis for effective mitigation through the planning and design of individual development projects. Standardized reporting procedures are necessary to assure consistency of hazard evaluation in the planning area.

Data collected for an individual development site does not necessarily provide a complete picture of the regional geologic hazards affecting the site. A broader data base of geologic and soils information, derived from a variety of research, development, and excavation projects, would provide consultants and reviewers with a broader perspective and significant insights on potential development hazards, that can be utilized on a regional scale for land use planning.

The following presents the goals, objectives, policies, and programs for geologic and seismic hazards in the City. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program. Because the geologic hazard seismic policies are highly interrelated, they often apply to more than one objective. Many of the policies and programs directly pertain to the Alquist-Priolo Special Study Zone and areas of high liquefaction susceptibility which are defined by the Seismic Hazards Overlay (Figure 54).

Goals

It shall be the goal of the City of San Bernardino to:

- 12A Substantially reduce the level of death, injury, property damage, economic and social dislocation and disruption of vital services that would result from earthquake damage.



- 12B Ensure the availability and effective response of emergency services following an earthquake.
- 12C Prepare the City for effective response to, and rapid, beneficial recovery from, an earthquake.

ISSUE ONE: FAULT RUPTURE

Objective

It shall be the objective of the City of San Bernardino to:

- 12.1 Protect life, safety, substantially reduce the damage from fault rupture, and help ensure orderly evacuation of building occupants following an earthquake.

Policies

It shall be the policy of the City of San Bernardino to:

- 12.1.1 Relate land use regulations regarding active faults to the importance or criticality of the use, size of the facility, and relative ease of evacuation of occupants if the building is damaged by fault rupture (I12.1-I12.6, I12.11).
- 12.1.2 Promote the collection of relevant data on fault location and history of fault displacement, as a basis for future refinement of fault zone policies. Questionable faults shown in Figure 47 with or without State and/or Federal assistance should be evaluated and a determination made of limitations to be imposed on new development in these areas (I12.2, I12.24, I12.26).

ISSUE TWO: STRONG GROUND MOTION

Objective

It shall be the objective of the City of San Bernardino to:

- 12.2 Protect health and life safety from the adverse effects of strong ground motion, through the implementation of effective standards for seismic design of structures in the City, consistent with the state-of-the-art, and reduce the level of potential property damage from strong ground motion, thereby facilitating rapid physical and economic recovery following an earthquake.

Policies

It shall be the policy of the City of San Bernardino to:

- 12.2.1 Adopt and maintain high standards for seismic performance of buildings, through prompt adoption and careful enforcement of the best available standards for seismic design. Building codes in use in the City need to be assessed to determine if they are sufficient for the high levels of ground shaking anticipated in close proximity to major faults (I12.1-I12.6, I12.16, I12.20-I12.25).

ISSUE THREE: LIQUEFACTION

Objective

It shall be the objective of the City of San Bernardino to:

- 12.3 Protect life and essential lifelines; reduce the potential for property damage from liquefaction; and promote the collection of more complete information on liquefaction susceptibility throughout the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 12.3.1 Determine the liquefaction potential at a site prior to development, and require that specific measures be taken, as necessary, to prevent or reduce damage in an earthquake (I12.1, I12.2, I12.6, I12.7, I12.16-I12.18).
- 12.3.2 Promote the collection of relevant data on groundwater levels and liquefaction susceptibility, as a basis for future refinement of liquefaction policies or procedures (I12.2, I12.16, I12.19).
- 12.3.3 Include potential damage to essential lifelines in liquefaction mitigation programs (I12.16, I12.17).
- 12.3.4 Develop a means of reducing the liquefaction potential of exiting facilities (I12.16, I12.17).

ISSUE FOUR: CRITICAL SENSITIVE, AND HIGH-OCCUPANCY FACILITIES

Objective

It shall be the objective of the City of San Bernardino to:

- 12.4 Ensure the continued functioning of essential facilities following a disaster; prevent loss of life from the failure of critical and sensitive facilities in an earthquake; and help prevent major problems for post-disaster response, such as difficult or hazardous evacuations or rescue, large number of injuries, and major cleanup or decontamination of hazardous materials.

Policies

It shall be the objective of the City of San Bernardino to:

- 12.4.1 Require that earthquake survival and efficient post-disaster functioning be a primary concern in the siting, design and construction standards for essential facilities (I12.1, I12.2, I12.6, I12.10, I12.11, I12.23, I12.24).
- 12.4.2 Require that proposed Critical, Sensitive, and High-Occupancy facilities come under careful standards of seismic review prior to any approvals, including detailed site investigations for faulting, liquefaction and ground motion characteristics, and application of the most current professional standards for seismic design (I12.1-I12.6, I12.20, I12.23, I12.24).
- 12.4.3 Prohibit the location of Critical Facilities in the Alquist-Priolo Special Study Zone for active faults (I12.1-I12.3, I12.23, I12.24).
- 12.4.4 Prohibit the location of Sensitive and High-Occupancy facilities within 100 feet of an active or potentially active fault (I12.1, I12.5, I12.6, I12.23, I12.24).
- 12.4.5 Attempt to locate Critical and Sensitive structures in areas with continuous road access where utility services can be maintained in the event of an earthquake (I12.1, I12.16, I12.17).
- 12.4.6 Require that existing Critical and Sensitive Facilities with significant seismic vulnerabilities be upgraded, relocated or phased out as appropriate (I12.11, I12.12).
- 12.4.7 Incorporate planning for potential incidents affecting Critical, Sensitive and High-Occupancy Facilities into the City's contingency plans for disaster response and recovery (I12.11, I12.34).

- 12.4.8 Require all Critical, Sensitive, and High-Occupancy Facilities located in areas of potential hazards to maintain emergency response plans, with contingencies for all appropriate hazards (I12.10, I12.31, I12.35).

ISSUE FIVE: HAZARDOUS BUILDINGS

Objective

It shall be the objective of the City of San Bernardino to:

- 12.5 Prevent the loss of life, serious injuries, and major social and economic disruption caused by the collapse of or severe damage to vulnerable buildings in an earthquake.

Policies

It shall be the policy of the City of San Bernardino to:

- 12.5.1 Adopt a program for the orderly and effective upgrading of seismically hazardous buildings in the City for the protection of health and safety. Compliance with SB547 shall include the enactment of an effective program for seismic upgrading of unreinforced masonry buildings within the City (I12.11, I12.12, I12.14, I12.15).
- 12.5.2 Develop procedures for seismic review of other potentially hazardous buildings at appropriate points in the buildings' histories (I12.24, I12.40, I12.43).

ISSUE SIX: EMERGENCY PREPAREDNESS

Objective

It shall be the objective of the City of San Bernardino to:

- 12.6 Provide effective response in a disaster, for life-saving and the curtailment of property damage and social dislocation; enhance emergency preparedness through community education and self-help programs; and prevent serious damage and injuries through effective hazard mitigation.

Policies

It shall be the policy of the City of San Bernardino to:

- 12.6.1 Ensure that emergency preparedness is the mutual responsibility of City agencies, City residents and the business community (I12.8, I12.27-I12.34).

- 12.6.2 Incorporate three emphases to the City's emergency preparedness program; hazard mitigation, disaster response and self-sufficiency/mutual support of residents, business and industry (I12.8, I12.27-I12.33).
- 12.6.3 Exercise the upgrade of the City's disaster response plans at least annually (I12.27-I12.32).

ISSUE SEVEN: POST-DISASTER RECONSTRUCTION

Objective

It shall be the objective of the City of San Bernardino to:

- 12.7 Plan for and facilitate the rapid and effective recovery of the City following an earthquake; and plan for alternative sources of financing of damage and reconstruction.

Policies

It shall be the policy of the City of San Bernardino to:

- 12.7.1 Develop programs, options, and procedures to promote the rapid construction of the City following an earthquake, and to facilitate a specific upgrading of the community environment, as opportunities allow (I12.37-I12.41, I12.43).
- 12.7.2 Establish the mitigation of earthquake hazards as a high priority for City programs, both before and after an earthquake (I12.1, I12.3-I12.7, I12.11, I12.14, I12.15, I12.18-I12.22, I12.24-I12.26, I12.33, I12.36-I12.48, I12.40-I12.43).

IMPLEMENTATION PROGRAMS

The following lists are the programs to implement the geologic and seismic hazard policies contained in the preceding sub-section of the plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

A. ZONING AND BUILDING CODES

- I12.1 The building and zoning codes shall be amended to incorporate specific standards for siting, seismic design, and review of Critical, Sensitive and High-Occupancy Facilities.
- I12.2 Detailed site specific studies for ground shaking characteristics, liquefaction potential (in areas defined as being susceptible to liquefaction only), and fault rupture potential shall be required as background to the development approval process for Critical, Sensitive and High-Occupancy Facilities.
- I12.3 Zoning regulations shall be amended to prevent Critical Facilities from being located in the Alquist-Priolo Special Study Zone of an active fault.
- I12.4 No single-family residences shall be constructed within fifty feet of either side of an active fault.
- I12.5 Within the Alquist-Priolo Special Study Zone, Sensitive and High-Occupancy Facilities shall require the discretionary approval of the Planning Commission, and the sites shall be designed to minimize the consequences of possible faulting. Sensitive and High-Occupancy Facilities shall not be allowed within 100 feet of either side of an active or potentially active fault.
- I12.6 Alquist-Priolo Special Study Zone Reports shall be standardized format through consultation with the City Geologist and relevant City Departments. An agreed upon design earthquake shall be formulated for the San Andreas, San Jacinto, and Cucamonga faults and utilized in the reports to determine ground shaking. Reports shall be reviewed for adequacy by the City Geologist.
- I12.7 All construction excavations and trenches relative to human occupancy and public works infrastructure of five feet or deeper in mapped fault zones shall be inspected by the City Geologist for any evidence of faulting.
- I12.8 Public participation shall be sought in the development of hazard mitigation and disaster recovery programs.

B. EXISTING HAZARDS: CRITICAL FACILITIES

- I12.9 Existing Critical, Sensitive and High-Occupancy facilities shall be reviewed for any significant siting, design or construction problems that would make them vulnerable in an earthquake. The findings shall be incorporated into emergency operations plans as well as addressed in longer-term programs of facilities upgrading or relocation. A special committee comprised of the City Geologist, City Engineer, and the Directors of Planning, Public Works, Building and Safety, and Emergency Services can formulate such plans.
- I12.10 Essential facilities within the City shall be surveyed for seismic hazards and programs shall be developed as appropriate for correction of any significant problems that could jeopardize public health and safety or inhibit effective emergency response. A special committee comprised of the City Geologist, City Engineer, and the Directors of Planning, Public Works, Building and Safety, and Emergency Services can formulate such plans.

C. HAZARDOUS BUILDINGS

- I12.11 Data on the current inventory of unreinforced masonry buildings shall be maintained and updated, including all information required under SB547.
- I12.12 A strong, enforceable ordinance for upgrading of unreinforced masonry buildings shall be utilized, and tailored to the local conditions in the City. The ordinance shall include:
- a. Priorities for the sequence of enforcement as appropriate to the use and occupancy types of unreinforced masonry buildings in the City.
 - b. Structural standards for seismic upgrading familiar to the seismic design and construction community in southern California.
 - c. Options or requirements for early anchoring of buildings, to provide an initial level of reinforcement at an early stage of seismic retrofit.
 - d. Incorporation of concepts and provisions of the State Code for historic buildings, to provide additional flexibility for preservation of historic buildings while protecting them from significant earthquake damage.
 - e. A time schedule for enforcement, consistent with the requirements of SB547 with all upgrading completed during that time.
 - f. Signs shall be posted and maintained on unreinforced masonry buildings to warn residents of the potential hazard.

I12.13 The following types of information shall be developed in preparation for the ordinance, to provide a substantial basis for policy evaluations.

- a. A disaster impact analysis of the City's unreinforced masonry buildings, including an assessment of potential casualties, damages, and economic and social impacts in the event of an earthquake.
- b. An environmental impact report for the proposed ordinance, including an assessment of social and economic impacts of the proposed correction programs. In particular, the potential effects of such an ordinance on viable housing should be evaluated.

I12.14 Strategies and program options shall be developed for preservation or replacement of the low- and moderate-income housing currently located in hazardous buildings. Possible strategies include, among others: community redevelopment programs; low-interest loans for seismic rehabilitation of residential buildings; preservation of nonconforming zoning rights for in-kind replacement of residential buildings; and relocation assistance for any displaced occupants.

I12.15 Appropriate means of economic relief for commercial buildings that fall under the hazardous buildings program, shall also be considered, such as: preservation of non-conforming zoning rights for in-kind replacement of commercial buildings, combined with the establishment of parking districts for relief of parking problems that would be perpetuated by the waiver of current parking requirements; and community redevelopment programs for the coordinated upgrading of seismic, economic, and general design characteristics of affected commercial areas.

D. LIQUEFACTION

I12.16 A liquefaction report shall be required for proposed projects located in areas susceptible to liquefaction. Resolution Number 82-345, which currently requires such reports, shall be updated by the City Geologist and relevant City Departments in order to standardize the report format and utilize a design earthquake on the San Andreas, San Jacinto and Cucamonga faults. Liquefaction reports will be submitted prior to issuance of construction permits. These reports will be utilized to help assure that adequate liquefaction mitigation is possible.

I12.17 Special review criteria shall be established for Critical and Sensitive Facilities proposed in or near potential liquefaction areas. The criteria should include such concerns as: blockage of road access and interruption of essential utility service as a result of liquefaction in the area.

- I12.18 Technical reviews of groundwater, liquefaction susceptibility, and fault zone data shall be conducted every three to five years at a minimum, for potential revisions in liquefaction susceptibility and fault zone designations and related land-use and construction policies.
- I12.19 High groundwater problems related to any old, improperly-abandoned water wells shall be mitigated wherever possible, by proper sealing and abandonment procedures.

E. BUILDING CODES AND REVIEW PROCEDURES

- I12.20 Any proposed State seismic revisions to the Uniform Building Code shall be reviewed for early adoption and implementation. These standards, as recommended by the Structural Engineers Association of California (1986) should be adopted on an interim basis for the design of large buildings.
- I12.21 Future revisions to the seismic building code shall also receive early review and incorporation, as appropriate, into the City Building Code.
- I12.22 The current development review procedures for concrete tilt-up and composite pre-stressed concrete construction shall be reviewed for consistency with effective principles of seismic design, and revised as appropriate to maintain the seismic integrity of new construction.
- I12.23 The highest and most current professional standards for seismic design shall be used in the design of Critical, Sensitive and High-Occupancy Facilities, so that the seismic design of the facilities will not become sub-standard within a few years.
- I12.24 All components of the seismic design for Critical, Sensitive and High-Occupancy Facilities shall be subject to independent, third-party structural engineer review by qualified professional standards for seismic design of those types of facilities, based on the development of appropriate criteria and procedures.
- I12.25 Effective review of seismic design for proposed buildings of four stories or more in height, or 6,000 square feet or more in ground level floor space shall be conducted by on-staff structural engineers or through third-party review by qualified engineers responsible to the City.

I12.26 A central repository shall be established in the City, for the collection and compilation of geologic and soils engineering information related to faults and fault zone studies, groundwater levels, soils characteristics, susceptibility to landslides and liquefaction, and other data as appropriate. The range of opportunities for collection of new liquefaction and fault-related data shall be identified, and a long-term program development for geologic inspection of all significant excavations in the fault zones. The cooperation of other agencies should be sought, to help identify additional opportunities for data collection. This information shall be used to increase the knowledge and insights of City reviewers and applicants alike, in support of hazard mitigation.

F. EMERGENCY PREPAREDNESS

- I12.27 Appropriate disaster response and earthquake response plans shall be maintained and updated on a regular basis.
- I12.28 Disaster response plans shall include adequate capabilities for heavy search and rescue, major medical response, interim morgue, emergency shelter, traffic and utility impacts, debris removal and disposal, as well as hazardous materials response for any chemicals stored or used in or adjacent to the hazardous buildings.
- I12.29 Disaster response plans shall also include procedures for access, traffic control, emergency evacuations, and security of damaged areas.
- I12.30 The City shall maintain effective mutual aid agreements for fire, police, medical response, public works, building inspection, mass care, and heavy rescue.
- I12.31 Emergency preparedness exercises shall be conducted at least once a year. Exercises shall be designed to test and upgrade various disaster response plans. Disaster planning scenarios and emergency response plans shall include contingencies for:
- a. possible ruptures on multiple faults, either separately or simultaneously;
 - b. collapse of 50 buildings or more, including some high-rise and mid-rise structures, some essential facilities, and numerous unreinforced masonry buildings;

- c. sporadic ground failure due to liquefaction, with major disruption of streets and utilities in some areas, and serious damage to homes and businesses;
- d. many aftershocks, continuing for several weeks or months.

Emergency preparedness exercises shall not be limited to earthquake response, but shall include other potential disasters such as fire and flooding.

I12.32 Earthquake prediction response plans should be developed, including procedures for protecting occupants of hazardous buildings, appropriate warning announcements and public education procedures, and other short-term preparations.

I12.33 A program of public education and preparedness shall be a major, continuing component of the emergency preparedness program. It should include, at a minimum:

- a. the existence and approximate locations of local faults, and liquefaction susceptibility areas;
- b. the potential for strong ground shaking in the area, and means of strengthening buildings and protecting furnishings, equipment and other building contents from damage;
- c. the need for businesses and residents to be self-sufficient for several days following an earthquake, including food, water, medical assistance, and limited fire-fighting;
- d. specific information describing what an individual should do during and immediately following an earthquake, whether at home, in a car, at work, or in an unfamiliar building.

I12.34 Special emergency preparedness plans shall be formulated for dealing with the possible effects of the severance of the City's major lifelines in the event of a major earthquake. For example:

- a. rupture of the petroleum product pipelines south and west of the City. Rupture could result in uncontrollable fires.
- b. rupture of the 36-inch natural gas transmission pipeline northwest of Muscoy. Rupture could cause extensive fires and loss of natural gas services to the City for extended periods of time.

- c. partial or total disruption of the operations at the Southern California Edison plants in San Bernardino, Loma Linda and Rancho Cucamonga.
- d. major to minor damage to the two major Southern California Edison substations located in the City.
- e. disruption of the water supply caused by a breach in the east branch of the California Aqueduct.
- f. disruption or termination of operations at the Devil Canyon power plant.
- g. disruption or termination of operations at wastewater treatment facilities.
- h. disruption or termination of telephone and telecommunications systems for at least three days.
- i. closure of major surface transportation routes, including railways, for several weeks to several months.
- j. ground failure and damage to runways at Norton Air Force Base.

I12.35 The cooperation of the business community shall be enlisted for public education and mutual assistance. Businesses should develop their own disaster response plans and have provisions for food, water, first aid and shelter of employees who may not be able to return home for several days following a major earthquake.

G. PLANNING FOR POST-DISASTER RECOVERY

I12.36 A standard committee for disaster recovery shall be established prior to any disaster, to provide contingency planning for the rapid and effective reconstruction of the City following a disaster. The committee shall include representatives of Planning, Public Works, Redevelopment and Building and Safety policy functions, as well as liaison to the local utilities and any State and Federal redevelopment, housing, and/or reconstruction programs, and other functions as necessary.

I12.37 The committee shall develop effective procedures for post-disaster damage assessment as appropriate for:

- a. obtaining State and Federal disaster assistance;
- b. obtaining the maximum allowable reimbursement for repair and reconstruction of public facilities;

- c. determining the location and nature of damage as an immediate basis for specific recovery planning.
- I12.38 The committee shall be charged with the overall review of damage patterns, and development of specific plans for post-disaster reconstruction, including programs for effective recovery of lifelines, housing, and the commercial viability of the community.
- I12.39 The committee shall propose any changes in land use, lifelines, circulation and architectural/landscape design within a reasonably short time after the disaster, to allow their early incorporation into post-disaster reconstruction.
- I12.40 The committee shall develop and institute procedures for rapid determination of locations where significant damage is caused by inherent geologic or structural problems that must be corrected to prevent recurring damage (high hazard areas).
- I12.41 Policies and procedures shall be instituted to facilitate the rapid repair and reconstruction of all facilities not designated as high hazard areas.
- I12.42 Procedures shall be developed for obtaining appropriate professional review of the high hazard areas, along with specific recommendations for hazard mitigation.
- I12.43 Guidelines shall be developed by a disaster recovery committee, for the exercise authorities for such purposes as:
- a. rapid designation of redevelopment area;
 - b. revision of land use, circulation and parking requirements, and institution of other programs for improving the community environment;
 - c. adaptation and institution of special programs for disaster recovery;
 - d. funding of disaster recovery measures;
 - e. moratoria on reconstruction in any high-hazard areas where damage could be repeated in aftershocks or in future earthquakes;
 - f. upgrading of the building code;
 - g. establishment of Geologic Hazard Abatement Districts, as appropriate; and

- h. designation of sites for temporary housing (e.g., travel trailers and pre-fab construction) of households made homeless in the disaster, in co-operation with the Disaster Housing Program of the Federal Emergency Management Agency.

13.0 HAZARDOUS MATERIALS/USES

BACKGROUND DATA AND ANALYSIS

A. HAZARDOUS WASTE PLANNING

The regulatory responsibility of hazardous waste in the City of San Bernardino belongs primarily to the San Bernardino County Department of Environmental Health. Hazardous waste falls into four general categories of materials that have some distinct characteristics in the types of danger they present. These include materials that are:

- toxic
- explosive
- reactive
- corrosive

The most comprehensive State legislation dealing with hazardous waste materials is the Tanner Act (AB2498) that was adopted in 1986. Because of the Tanner Act, the State Department of Health Services is providing regulations and procedures for hazardous waste materials operations and assisting counties with guidelines and funding for the preparation and adoption of local hazardous waste management plans. The preparation of local management plans in southern California is being coordinated on a regional basis with the Southern California Hazardous Waste Management Authority.

The San Bernardino County Environmental Health Department is preparing the County Hazardous Waste Management Plan. This plan will develop regulations at the local level for the creation, storage and handling of hazardous waste material. The plan will pertain to all of San Bernardino County and is to be prepared in a manner to qualify for inclusion as an element in the County and respective City General Plans.

The management plan, to be consistent with the Tanner Act, will need to provide the following components:

1. Planning process for waste management
2. Permit process for new and expanded facilities
3. Appeal process to the State for certain local decisions

The Tanner Act also requires local waste management plans to include the following specific issues:

1. Analysis of current waste streams, treatment and disposal facilities availability and estimates of expected rates of generation until 1994;
2. Analysis of potential for waste reduction and recycling;

3. Consideration of need to manage small volumes of hazardous waste from businesses and households;
4. Determination of need for additional hazardous waste facilities;
5. Identification of specific sites for additional hazardous waste facilities or identification of siting criteria for locating additional hazardous waste facilities; and
6. Formation of goals, objectives and policies for hazardous waste facilities and hazardous waste management through the year 2000. Additionally, a county may include other elements in the plan such as a description of local programs for public education, enforcement, surveillance, transportation and administration.

B. HAZARDOUS WASTE OPERATIONS

Permits are required by the State Department of Health Services for the use, storage or disposal of hazardous substances. The permits range from the use of solvents and flammable material in the ordinary repair of automobiles to the treatment or handling of hazardous wastes in large quantities over prolonged periods of time. Operations that involve the treatment of hazardous wastes or storage over long periods of time require the issuance of a special permit by the State Department of Health Services. As indicated, the County Hazardous Waste Management Plan is refining permit criteria and standards which will vest the permit process to the State.

There are six approved hazardous waste management companies offering managing services to other companies in the City of San Bernardino for the treatment, disposal or storage of hazardous material. These companies have either received a permit or have been granted interim status by the State of California pending review of the facilities for compliance with federal and State regulations.

C. EMERGENCY RESPONSE

Accidents with hazardous waste material are usually handled initially by the police and fire department serving the planning area. If they determine a need for special expertise and equipment, they may request assistance from the Countywide Haz Mat Team from the County Environmental Health Department. The Haz Mat Team includes a minimum of two fire specialists and two environmental health specialists who perform hazard identification, risk assessment, and actual control measures. Haz Mat is a cooperative organization structure that is intended to bring the maximum available equipment and special expertise to any given emergency situation.

D. SUBSURFACE CONTAMINATION

There are numerous sites in the City that historically have been subject to the disposal of hazardous waste that have likely contaminated the underlying groundwater. These sites may present an imminent danger to surrounding areas. They are polluting the

groundwater and in many specific instances, they are polluting wells within the planning area. The pollution of the City water system and those in other jurisdictions is a potentially serious health problem.

ISSUES

The following issues regarding hazardous waste in the planning area have been identified:

- A. Hazardous waste material will be stored, treated and transported in the City. There are processes in the preparation of the hazardous waste management plan that include the assessment of the risk involved and allow the City to make decisions on the level of risk they are willing to accept.
- B. In addition to hazardous waste regulations, land use regulations in the City can be developed to protect sensitive facilities such as schools and hospitals.
- C. The handling of hazardous waste material can be excluded from certain areas in the planning area. This can provide for the protection of environmentally sensitive resources such as air quality, wetlands, habitats of rare and endangered species, agricultural lands, natural resources of recreational, cultural, and aesthetic value, critical public facilities, valuable mineral resources, and surface and subsurface groundwater.
- D. The City can participate in the process of selecting routes which are more acceptable for the safe transportation of hazardous waste material within the City limits. Streets with high concentrations of people, such as the downtown, or with sensitive facilities, such as schools and parks, can be considered for exclusion.
- E. Hazardous waste facilities should be structurally stable to ensure the containment of the hazardous material. Areas acceptable for hazardous waste facilities can be selected to avoid natural hazards such as earthquakes and floods.
- F. Plans for new development are reviewed by the various departments in the City. These departments are in a good position to identify potential hazardous waste generators and advise them of required permits before they are established. This would include hazardous waste generators that might use the City sewer system for disposal of waste products.
- G. The Fire Department and the Police Department can continue to play a key role in the on-site identification of hazardous wastes and emergency response to hazardous waste accidents through cooperation with the County Department of Environmental Health Services.

GOALS, OBJECTIVES, POLICIES, AND PROGRAMS

OVERVIEW FOR HAZARDOUS MATERIALS/USES

The City's goals, objectives, and policies for hazardous materials/uses should be designed to ensure that the public health, safety, and welfare, and environmental resources are protected. Planning should emphasize waste reduction, recycling, proper management of hazardous materials, siting of facilities, and effective emergency response.

The following presents the goals, objectives and policies for hazardous uses/materials in the City of San Bernardino. Implementation programs are contained in the following subsection. At the end of each policy is listed a capital "I" and a number in parentheses which refers to the pertinent implementing program.

Goals

It shall be the goal of the City of San Bernardino to:

- 13A Protect public health, safety, and welfare, and the environment in San Bernardino City through proper planning for hazardous waste management.
- 13B Promote proper operations management of hazardous waste facilities and enforcement of applicable regulations.
- 13C Ensure a coordinated and effective emergency response system.
- 13D Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.

ISSUE ONE: HAZARDOUS WASTE MANAGEMENT PLANNING

Objective

It shall be the objective the City of San Bernardino to:

- 13.1 Ensure protection of surface and groundwater quality, land resources; air quality, environmentally sensitive areas; and safe transportation of waste through comprehensive planning.

Policies

It shall be the policy of the City of San Bernardino to:

- 13.1.1 Develop long-range planning programs to protect resources and the public (I13.1 through I13.8).
- 13.1.2 Determine the need for additional hazardous waste facilities (I13.1, I13.2).
- 13.1.3 Reduce risk to public from known contamination sites (I13.1 through I13.8).

ISSUE TWO: HAZARDOUS WASTE OPERATIONS

Objective

It shall be the objective of the City of San Bernardino to:

- 13.2 Decrease risks to the public from unregulated hazardous uses/materials in transport, handling, storage and disposal.

Policies

It shall be the policy of the City of San Bernardino to:

- 13.2.1 Select appropriate sites for new locations of hazardous uses/materials and disposal areas (I13.1, I13.2).
- 13.2.2 Work with the Department of Environmental Health Services to enforce applicable regulations for safe operation of hazardous waste facilities and adopt new regulations as necessary (I13.1, I13.2, I13.9, I13.10).
- 13.2.3 Work with the Department of Environmental Health Services to promote waste minimization and use of best available technology in City businesses (I13.1, I13.2).
- 13.2.4 Encourage the use of competent operators for hazardous materials transportation and disposal services (I13.2).

ISSUE THREE: EMERGENCY RESPONSE PLANNING

Objective

It shall be the objective of the City of San Bernardino to:

- 13.3 Prevent loss of life, serious injuries and major economic disruption caused by hazardous uses/materials and related accidents.

Policies

It shall be the objective of the City of San Bernardino to:

- 13.3.1 Facilitate coordinated, effective response to hazardous materials emergencies in the City to minimize health and environmental risks (I13.2).

- 13.3.2 Encourage public awareness of emergency response planning (I13.2).

ISSUE FOUR: SURFACE AND SUBSURFACE GROUNDWATER CONTAMINATION

Objectives

It shall be the objective of the City of San Bernardino to:

- 13.4 Establish water resource protection as a recognized commitment of the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 13.4.1 Promote integrated inter-agency review and participation in water resource evaluation and mitigation programs (I13.11, I13.12).

- 13.4.2 Protect surface water and groundwater quality from new contamination (I13.2, I13.13, I13.14).

- 13.4.3 Eliminate old sources of water contamination by hazardous materials and uses (I13.2).

- 13.4.4 Develop programs and incentives for prevention and clean-up (I13.2, I13.15, I13.16).

IMPLEMENTATION PROGRAMS

The following lists include the programs to implement the hazardous materials/uses policies contained in the preceding subsection of the Plan. The capital "I" and the number preceding each program are referenced by the policies which they implement.

- I13.1 Assist the County Department of Environmental Health Services in preparing and updating the County Hazardous Waste Management Plan.
- I13.2 Adopt and enforce the County Hazardous Waste Management Plan through General Plan or ordinance adoption.
- I13.3 Participate with the County DEHS in all task force, study and review groups formed to implement and update the CHWMP.
- I13.4 Amend the Development Code to establish procedures for processing projects which involve the use, storage, transport, handling and/or disposal of hazardous materials/wastes. These procedures shall include provisions for the involvement of DEHS (permits, site plan review, etc.), submittal of additional information (such as a Business Plan, Waste Minimization Plan, risk assessment, etc.) and processing timeframes.
- I13.5 Amend project applications to include requirements for submittal of information involving the proposed use, storage, handling, transport and/or disposal of hazardous materials/wastes and any previous use, storage, handling and/or disposal of hazardous materials/wastes.
- I13.6 Develop a listing of land uses which typically use, store or generate hazardous materials/wastes, to be used by the Planning Department in conjunction with I13.4 and I13.5 to determine project processing procedures.
- I13.7 Investigate and establish a procedure to identify existing, expanded and new businesses in the City which handle hazardous materials and/or generate hazardous waste. These procedures shall include an agreement with the County DEHS for both jurisdictions to share compiled information.
- I13.8 Amend the Development Code to establish procedures for processing projects proposed on identified contaminated sites (OPR and DEHS lists). These procedures shall include provisions for preapplication conferences and discretionary review.
- I13.9 Evaluate the structural stability of hazardous waste facilities.

- I13.10 Require permits for the use, storage handling, transport or disposal of hazardous materials/waste substances in accordance with applicable federal, state and county laws/regulations.
- I13.11 Participate with representatives of all interested parties (such as the Regional Water Quality Control Board, other regional agencies, water purveyors, large water users, environmental groups, and the public) to develop a Groundwater Protection Strategy and Implementation Program.
- I13.12 Coordinate groundwater quality monitoring in accordance with State laws.
- I13.13 Establish an inventory of public and private groundwater wells for long-term monitoring program of groundwater contamination trends.
- I13.14 Develop an auditing and reporting program for each City well monitored for changes in water quality. Publish periodic data on water quality.
- I13.15 Provide sustained financial, technical, and political support for programs to identify potential water resource protection and enhancement strategies.
- I13.16 Utilize current technology for groundwater and surface water clean-up. Make such information available on request basis.

14.0 NOISE

INTRODUCTION AND STATUTORY REQUIREMENTS

California State law, Government Code Section 65302(f), requires the preparation and adoption of a noise element as follows:

A noise element, which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

- 1. Highways and freeways.*
- 2. Primary arterials and major local streets.*
- 3. Passenger and freight on-line railroad operations and ground rapid transit systems.*
- 4. Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.*
- 5. Local industrial plants, including, but not limited to, railroad classification yards.*
- 6. Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.*

Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6) inclusive.

The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise..

The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

BACKGROUND DATA AND ANALYSES

The ambient noise environment of an urban area typically results from a number of sources which generate sound associated with their activity. The magnitude of the effects of these noise levels on humans depends on the spatial and temporal distribution of the intruding noise. Annoyance, inconvenience, pain and serious hearing damage are among the potential effects of noise on people. The degree to which there is annoyance and/or activity interference depends upon the magnitude of the intruding noise level, the frequency with which it occurs, and the time of day of the occurrence. Several government agencies charged with establishing noise standards and criteria have determined that the day-night average sound level (Ldn) is the preferred unit of noise exposure measurement for use in assessing the potential impact of an intruding noise source. The day-night sound level represents an average of the A-weighted¹ noise levels occurring during a complete 24-hour period; however, it includes a weighting applied to those noises occurring during nighttime (10 p.m. to 7 a.m.) hours.

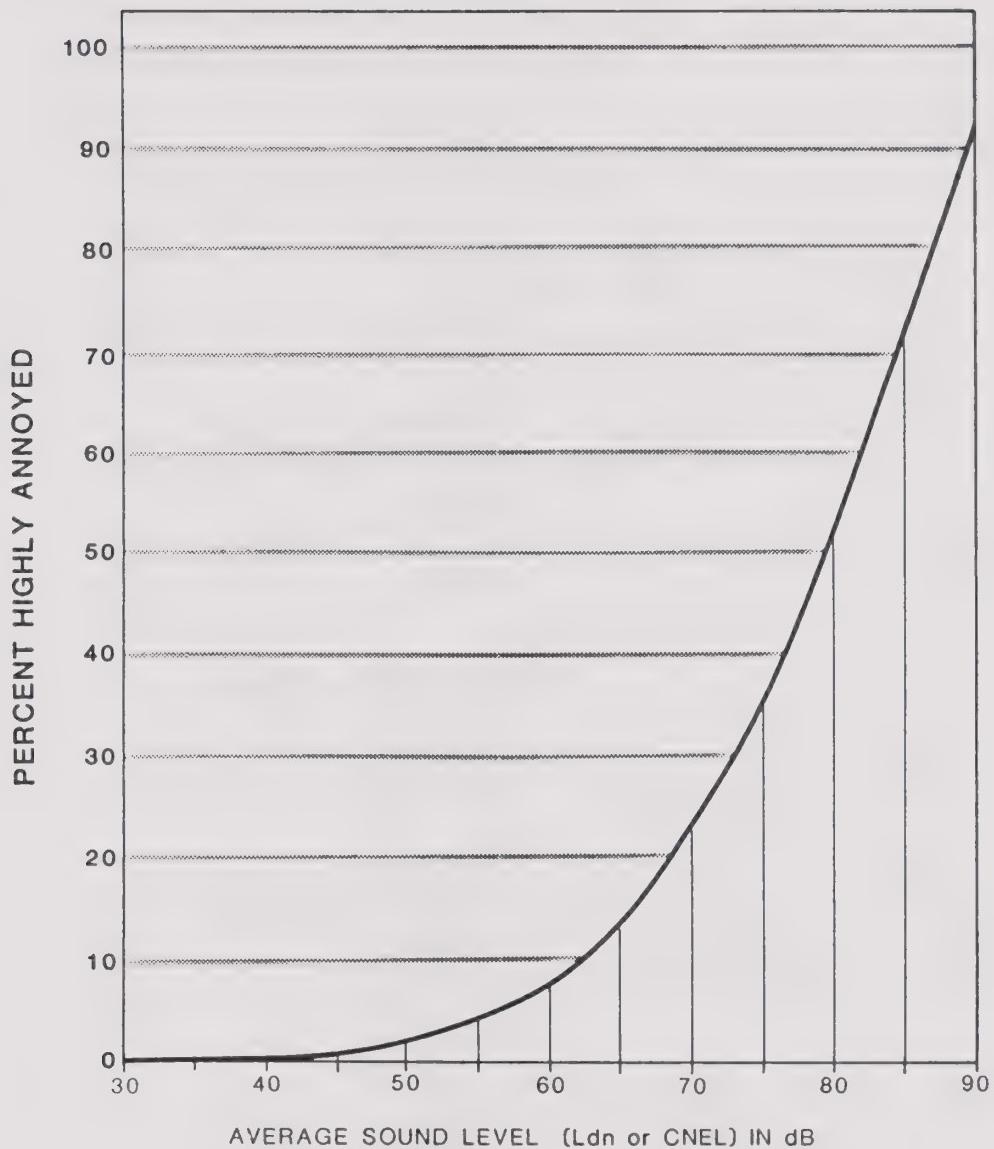
Several surveys have been conducted evaluating people's reaction to noise during day and night conditions. Figure 55 depicts the results of many of these surveys and has been found to be appropriate for a variety of noise generators, including aircraft, vehicular, and railroad sources

Specific land use compatibility criteria have been developed by the State of California for individual land uses based upon the information described in Figure 55. Figure 56 provides noise compatibility guidelines for a variety of land uses and indicates that for many "noise sensitive" land uses such as schools, churches, hospitals, and residences an Ldn value of 70 dB has been established as the maximum acceptable exterior noise level while a noise level of 65 dB is recommended.

The following discussion of the existing noise environment of the City includes references to 'calculated' noise levels and to noise levels identified during field monitoring. Calculated noise levels are those noise levels which were arrived at through analytical mathematical formulae. The methodology used to arrive at these calculated noise levels are referenced in the text where appropriate. Supplemental data were arrived at through field monitoring conducted by Envicom Corporation staff during December 1987 using a Brüel and Kjaer Series 2225, Type II noise meter which utilizes the A-weighted scale.

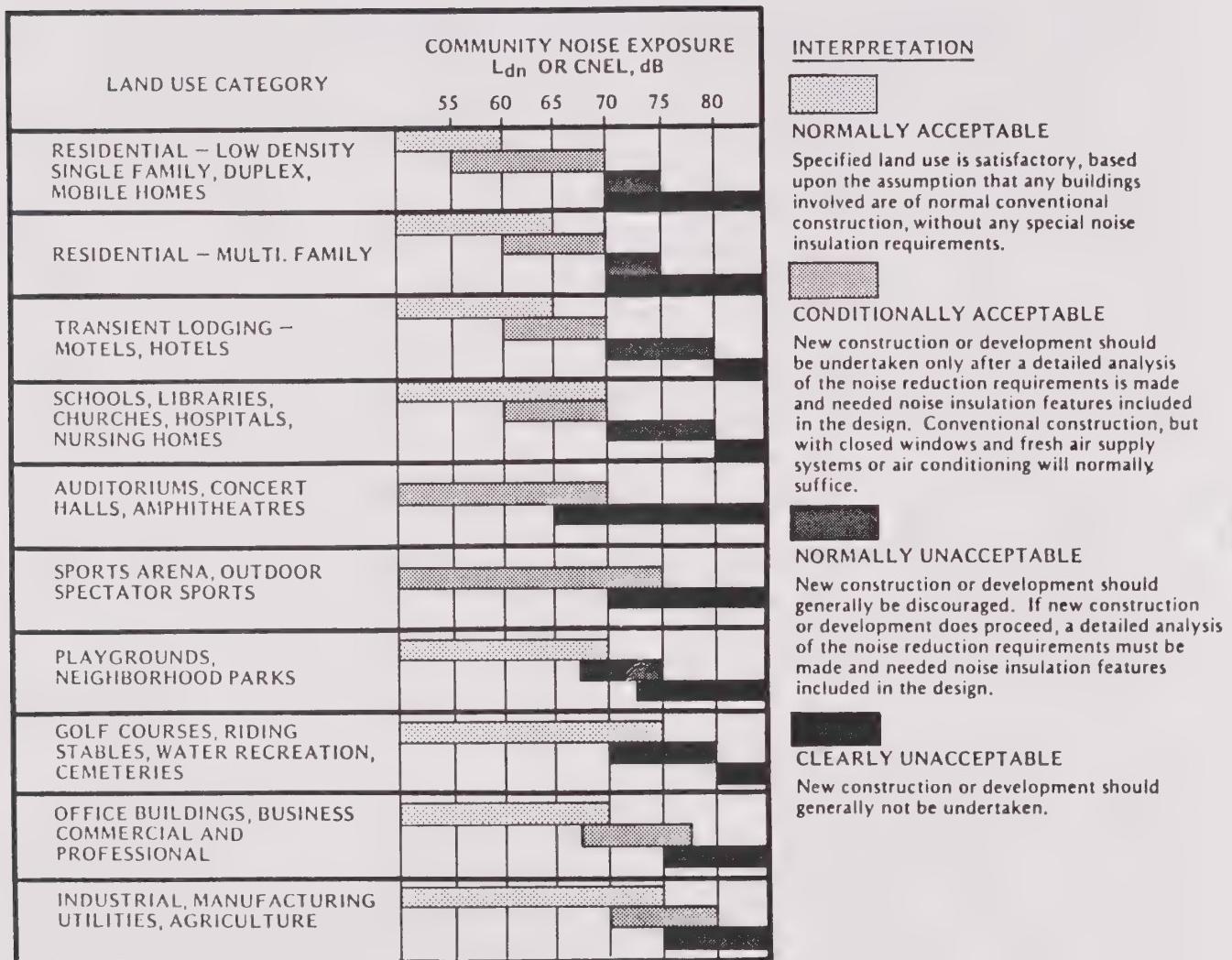
¹ The A-weighted noise level is a measure of the noise level at any point in time, while the day-night sound level is a measure of the noise exposure over a full day. The term "A-weighted" refers to a filtering of the noise signal to emphasize frequencies in the middle of the audible spectrum and to de-emphasize low and high frequencies in a manner corresponding to the way the human ear perceives sounds. The A-weighted noise level has been found to correlate well with people's judgments of the noisiness of different sounds and has been used for many years as a measure of community noise.

FIGURE 55



COMMUNITY RESPONSE TO NOISE

LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS



(Source: Office of Noise Control, California Department of Health)

A. EXISTING CONDITIONS

Within the San Bernardino planning area, three major noise sources occur and include: (1) aircraft; (2) rail traffic; and, (3) vehicular traffic.² Aircraft operations are associated with Norton Air Force Base and are the dominant noise source in some portions of the City. Existing noise conditions in the City are depicted on Figure 57.

It is estimated that approximately 243 acres of low and medium density residential dwelling units exist within an area having exterior noise levels greater than 65 dB due to the Base's noise. Of this 243 acre area, 49 percent is affected by exterior noise levels greater than 70 dB and 18 percent by levels greater than 75 dB.

Railroad activity also contributes to the City-wide noise environment. Within the San Bernardino planning area, trains travel on three different Southern Pacific Transportation Company (SPTC) rail lines that include: (1) The Cajon Pass Line; (2) The Main Line-Redlands, which extends eastward to the City of Redlands; and, (3) The Main Line-Colton, which extends westward to the City of Colton.

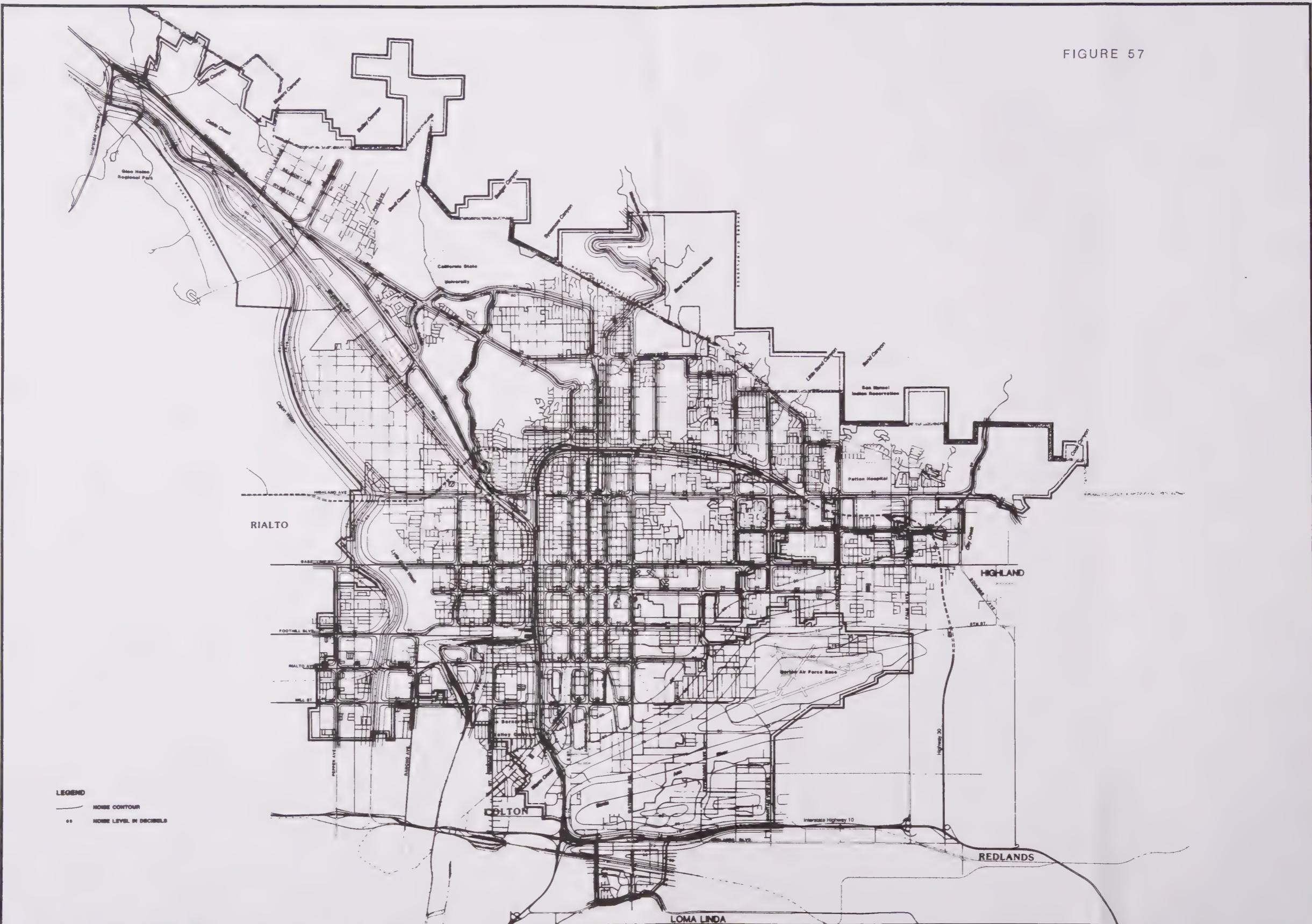
The Atchison, Topeka and Santa Fe Railway Company also operates rail lines within the City. These rail lines include: (1) The Santa Fe Subdivision Two Line; (2) The Santa Fe Subdivision Three Line; and, (3) The Santa Fe Cajon Pass Line. Each route contributes a different level of noise to the City resulting from the different volumes of train traffic which occur on each line. Noise exposure levels for railroad operations in the planning area were calculated using the methodology recommended by the U.S. Department of Housing and Urban Development (Noise Assessment Guidelines, 1979). This method is an analytical method used to predict railway noise with consideration given to the type and number of locomotives and cars, speed, track conditions and the percentage of rail traffic occurring at night. Table 35 indicates the number of trains that travel on each line and the level of noise expected to be generated by these trains based on the above referenced methodology. As shown, the Southern Pacific Lines typically generate the highest noise levels, while the Santa Fe Subdivision Two Line contributes significantly less noise due to its more limited use.

Field monitoring of noise levels in residential areas near the AT & SF railyard indicates that local residents are generally exposed to noise levels of 61 dB. However, the passage of singular trains and the occasional whistle-blowing associated with grade crossings can result in noise levels exceeding 74 dB (100 feet from the railway) for short periods of time.

² A map depicting existing noise levels is included in a pocket in the back cover of this document.



FIGURE 57



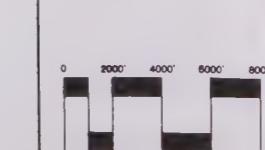
EXISTING NOISE

City of San Bernardino General Plan

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TABLE 35

Railroad Noise Contributions^a

<u>Rail Line</u>	<u>Number of Trains/Day</u>	<u>db(A) at 200 Feet</u>
<u>Southern Pacific</u>		
Cajon Pass Line	12 ^b	75
Main Line-Redlands	50	74
Main Line-Colton	35	73
<u>Sante Fe</u>		
Subdivision Two Line	9 ^c	56
Subdivision Three Line	28	72
Cajon Pass Line	26	72

^a Noise Assessment Guidelines, HUD, Office of Policy Development and Research, 1979.

^b Source: John Tierney, Southern Pacific Transportation Company, 1987.

^c Source: Karen Montella, Atchison, Topeka and Santa Fe Railway Company, 1987.

Noise associated with automobile traffic on major roadways affects most parts of the City near high volume roadways. Streets with the greatest daily traffic volumes and associated are listed on Table 36. Estimates of the existing noise levels (Ldn) (referenced at 100 feet from these roadways) were calculated using procedures recommended by the Department of Housing and Urban Development (HUD). Table 37 lists the estimated existing noise levels (also referenced at 100 feet) for major Federal and State routes in the planning area. These estimates of roadway noise should be considered only as approximations as they do not incorporate the possibility of variations in terrain, or the possible occurrence of intervening structures which may provide a "shielding effect" for structures more distant from the roadway. However, they do provide an indication of the level of noise exposure levels attributable to different roadways in the planning area.

As shown on Table 36, a number of roadways within the planning area generate noise levels greater than 65 dB. Where residential or other noise-sensitive land uses occur along these roadways (within 100 feet), citizens would be exposed to noise levels above recommended levels.

The north-/south-trending streets in the City which are impacted by noise levels above 65 dB include "E" Street, Arrowhead Avenue, and Waterman Avenue. Those areas of greatest concern, specifically residential areas, occur along "E" Street from its northern terminus to Highland Avenue, and along Arrowhead Avenue from its northern terminus to 9th Street. Residential areas also occur along Waterman Avenue from its northern terminus to Highland Avenue and more sporadically in the southern portion of the City.

Residential areas affected by noise levels greater than 65 dB along east-/west-trending streets from Waterman Avenue to the western boundary of the City and along Mill Street from Rancho Avenue to the western City boundary. Potentially impacted residential areas also occur along 2nd and 5th Streets from Sierra Way to Waterman Avenue and Sterling Avenue to Victoria Avenue, respectively. Calculations indicate that Highland Avenue, in its entirety, is affected by noise levels above 65 dB with some areas above 70 dB. It should be noted that isolated residential uses occur along Highland between Medical Center Drive and Western Avenue and between "G" and "E" Streets. Arrowview Junior High School also occurs near the intersection of "G" Street and Highland Avenue where noise levels are expected to be above the 65 dB limit established for noise-sensitive land uses.

B. FUTURE CONDITIONS

Continued development of the planning area will increase vehicular travel and, as a consequence, noise levels. Future noise conditions have been calculated based on increases in vehicular trips on the freeways and City streets that would result on buildout of the General Plan, as defined in the Circulation Element, and using methodology described in Fundamentals and Abatement of Highway Traffic Noise, Bolt, Beranek, and

TABLE 36

Estimated Noise Levels (Ldn)
Near Major Roadways

	<u>Between</u>	Existing dB(A) Ldn (at 100 feet)	Increase at Plan Buildout	Future dB(A) Ldn (at 100 feet)
1986 ADT 30-50,000				
Highland Avenue	I-215/Rte 30 Arrowhead/Sierra	70	2.0	72
1986 ADT 20-30,000				
Waterman Avenue	40th St./I-10	66-68	3.5	70-72
Highland Avenue	Pepper/I-215	66-68	1.2	67-69
5th Street	Pepper/Rancho	66-68	1.6	68-70
Baseline Street	I-215/Waterman	66-68	2.8	69-71
Del Rosa Avenue	Rte 30/Highland	66-68	4.7	71-73
Mt. Vernon Avenue	Baseline/9th	66-68	3.7	70-72
Mill Street	K St./E St.	67-68	4.4	71-72
1986 ADT 10-20,000				
Waterman Avenue	40th St./Sierra Way	64-67	1.9	66-69
Orange Show Rd.	at I-215	64-67	4.4	68-71
3rd Street	Tippecanoe/Sterling	64-67	4.8	69-72
5th Street	Rancho/Waterman	64-67	3.9	68-71
9th Street	I-215/Tippecanoe	64-67	10.1	54-57
Arrowhead Ave.	Orange Show Rd./ 5th St.	64-67	7	71-74
Baseline Street	Waterman/Sterling	64-67	1.5	66-69
Mt. Vernon Ave.	Baseline/Cajon	64-67	5.1	69-72
Pacific Street	Sterling/Victoria	64-66	-7.9	56-58
Sterling Avenue	5th St./Rte 30	64-66	5.0	69-71
University Pkwy.	I-215/N. Park	64-66	5.4	69-71
Redlands Blvd.	at Waterman	64-66	4.9	69-71
40th Street	Electric/Waterman	64-66	2.2	66-68
H Street	5th/9th	64-66	-3.6	60-62
Rialto Avenue	Mt. Vernon/ Arrowhead	64-66	4.8	69-71
Sierra Way	5th/9th	64-66	7.6	72-74
Kendall Drive	University/E St.	64-66	5.1	69-71
Mill Street	K St./E St.	64-66	5.2	69-71

TABLE 36 (Cont.)

**Estimated Noise Levels (Ldn)
Near Major Roadways**

		<u>Existing dB(A) Ldn (at 100 feet)</u>	<u>Increase at Plan Buildout</u>	<u>Future dB(A) Ldn (at 100 feet)</u>
Pepper Avenue E Street	Mill/Foothill I-10/Highland Pepper/Mt. Vernon	64-66 68	4.7 5.9	69-71 74
1986 ADT 5-10,000				
Rialto Avenue	Arrowhead/Waterman	62-64	3.2	65-67
Rancho Ave.	Mill/Foothill	62-64	8.3	70-72
5th Street	Waterman/Victoria	62-64	6.4	68-70
Inland Center Drive	Mt. Vernon/215	62-64	7.5	70-72
30th Street		62-64	1.1	63-65
3rd Street	E St./Tippecanoe	62-64	3.7	
9th Street	Pennsylvania/I-215	62-64	-1.3	61-63
E Street	Highland/Rte 30	62-64	6.9	69-71
21st Street	Waterman/Valecia	62-64	-8.3	54-56
Arrowhead Avenue	Highland/5th	62-64	-2.7	59-61
Sierra Way	Mill St./5th	62-64	8.6	71-73
Cajon Blvd.	Palm/Mt. Vernon	62-64	8.0	70-72
Kendall Drive	Palm/University	62-64	3.5	66-68
Muscott Street		62-64	-2.6	59-61
Victoria Avenue	Lynwood/Baseline	64-65	3.6	68-69
Palm Avenue	at Highland	64-65	-1.6	62-63

Methodology: Noise Assessment Guidelines, HUD, Office of Policy Development and Research, 1979.
Fundamentals and Abatement of Highway Traffic Noise, Bolt, Beranek and Newman, Inc., 1973.

TABLE 37

Estimated Noise Levels (Ldn)
Near Major Freeways

	Average Daily Vehicular Trips (ADT)	Existing dB(A) Ldn (at 100 feet)	dB(A) Increase under Max Buildout	Future dB(A) Ldn (at 100 feet)
Interstate 215				
Route 30 - 9th St.	60,000	77	2.6	80
Inland Ctr - I-10	130,000	80	.93	81
Interstate 10	100,000	80	1.1	81
State Route 30	45,000	77	2.4	79
State Route 18	14,000	73	4.0	77

Methodology: Noise Assessment Guidelines, HUD, Office of Policy Development and Research, 1979.

Newman, 1973.* Tables 36 and 37 indicate the decibel increases and estimated future noise levels, which are depicted on Figure 58. Changes in the noise levels are directly correlated with projected changes in traffic volumes. In some cases (e.g., segments of Pacific Street, H Street and 21st Street), noise levels will be reduced. This will result from the redistribution of vehicular trips attributable to the buildout of the Land Use Plan and implementation of the Circulation Plan. It should be noted that no changes in the noise levels attributable to Norton Air Force Base have been estimated as the facility is scheduled for closure and subsequent uses for the site (which may include commercial cargo aviation activities) have not been determined.

There are several areas which may experience noticeable (3-5 decibels) noise increases due to traffic generated by the General Plan. North-south trending streets whose traffic load increases will increase noise levels by 4 dB or greater include: Mt. Vernon Avenue, "E" Street, the southern portion of Arrowhead Avenue, the northern portion of Del Rosa Avenue, Sterling Avenue, south of Route 30; and Waterman Avenue, south of Mill Street.

East-west trending roadways of the urbanized areas which may generate noticeable noise increases of 4 dB or more include: Mill Street, Rialto Avenue, and the eastern portion of 5th Street. In addition, a proposed road linkage connecting Orange Show Road with San Bernardino Avenue will result in a new noise source along the proposed road portions as well as increased noise levels along the existing portion. Future traffic along Inland Center Drive will create a noise increase of 7.5 dB. Some of these significant areas, such as Waterman Avenue, Arrowhead Avenue, and Mill Street include homes which are currently impacted by noise levels greater than 65 decibels.

Roadways which will link new developments in the northwest quadrant to the rest of the City will also carry increase traffic loads and result in noise increases of 4 decibels or greater. Residential areas adjacent to Cajon Boulevard and North Park Boulevard will be particularly impacted, experiencing noise increases of 8.0 decibels over conditions in 1986. Future traffic on University Parkway and Kendall Drive will create estimated noise increases of 5 decibels.

Future noise increases along highways servicing the City will, generally, be minimal. However, noise levels along State Route 18 can be expected to increase by 4 decibels.

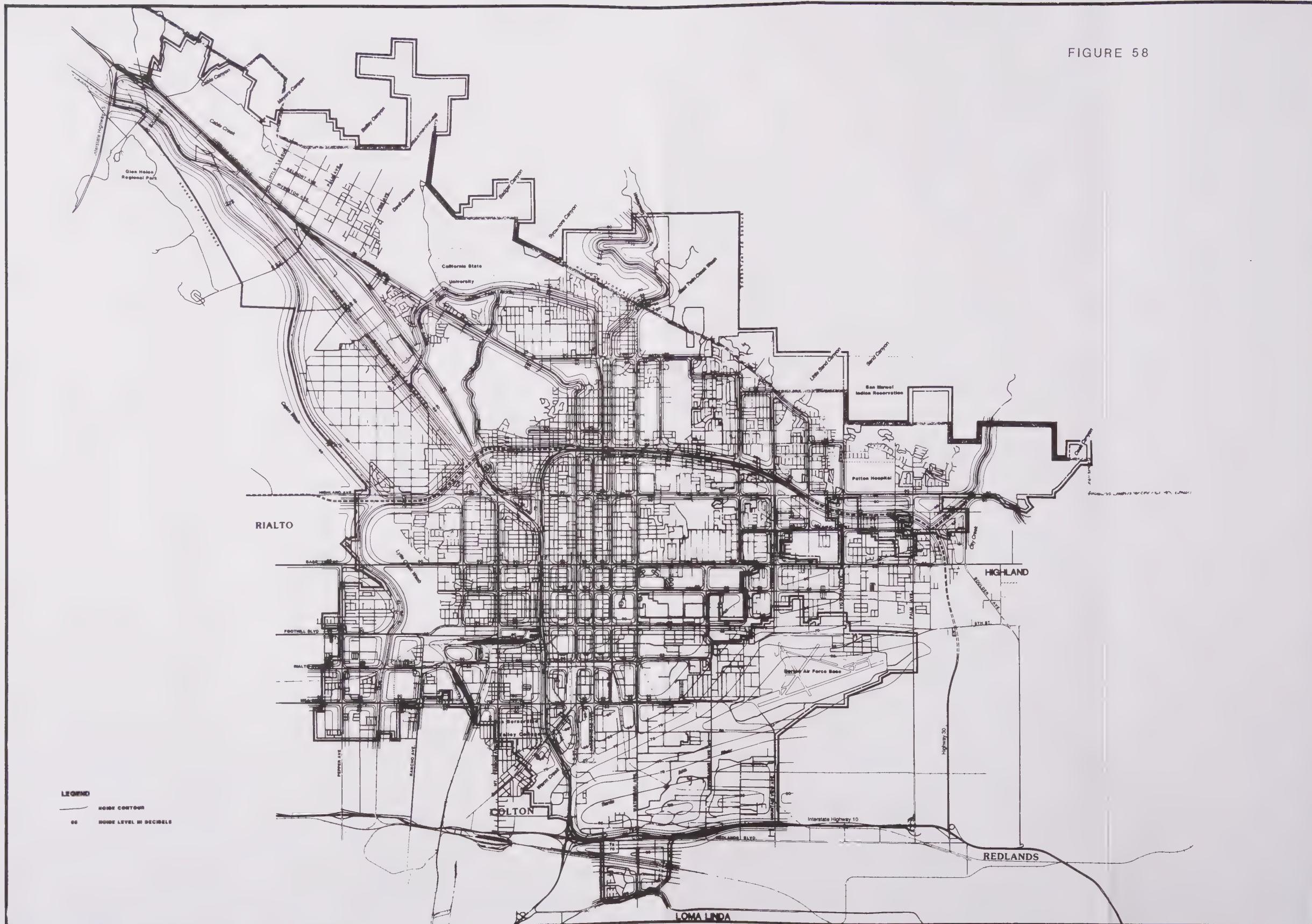
ISSUES

The following indicates the significant noise issues associated with the San Bernardino planning area:

- A. Noise in the planning area exceeds levels recommended by the State Office of Noise Control along major highways, freeways, the railroads, and flight paths of Norton Air Force Base.

* A map depicting future noise levels is included in a pocket in the back cover of this document.

FIGURE 58



FUTURE NOISE

City of San Bernardino General Plan

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0 2000' 4000' 6000' 8000'

ACRES

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NORTH





- B. Residential areas in the City are impacted by vehicular and aircraft noise levels exceeding State guidelines. This impact is magnified adjacent to high volume roadways and freeways in the City.
- C. Without more stringent local controls, new development will continue to occur in areas that are presently characterized by noise levels that exceed State guidelines.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives and policies for noise in the City of San Bernardino planning area. Implementing programs are contained in the following subsection. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 14A Ensure that the City of San Bernardino residents are protected from excessive noise.

Objective

It shall be the objective of the City of San Bernardino to:

- 14.1 Ensure that land uses are compatible with existing and future noise levels.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.1.1 Prohibit the new development of housing, health care facilities, schools, libraries, religious facilities, and other "noise" sensitive uses in areas where existing or future noise levels exceed an Ldn of 65 dB(A) exterior and an Ldn of 45 dB(A) interior if the noise cannot be reduced to these levels (I14.1-I14.3).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.2 Prevent adverse noise impacts of development on adjacent uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.2.1 Prohibit the development of new or expansion of existing industrial, commercial, or other uses which generate noise levels on areas containing housing, schools, health care facilities or other sensitive uses above a Ldn of 65 dB(A) (I14.3, I14.6, I14.9, I14.10, I14.11, I14.15, I14.20, I14.21).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.3 Minimize the adverse effect of traffic-generated noise on residential and other noise sensitive land uses from noise and highways.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.3.1 Work with Caltrans to landscape or install mitigation elements along freeways and highways adjacent to existing residential subdivisions or noise-sensitive uses to reduce noise impacts (I14.18).
- 14.3.2 Work with Caltrans to mitigate the negative effects of noise attributable to new freeways by elevating or depressing them or incorporating other noise attenuating elements (I14.18).
- 14.3.3 Minimize noise attributable to vehicular travel in residential neighborhoods by inhibiting through trips by the use of cul-de-sacs, one-way streets, and other traffic controls (I14.12).
- 14.3.4 Enforce sections of the California Vehicle Code related to mufflers and modified exhaust systems (I14.14).
- 14.3.5 Provide for the development of alternate transportation modes such as bicycle paths and pedestrian walkways to minimize the number of automobile trips (I14.24).
- 14.3.6 Require that new equipment and vehicles purchased by the City comply with noise performance standards consistent with the best available noise reduction technology (I14.16).
- 14.3.7 Require that commercial and industrial uses implement or participate with others in implementing transportation demand management programs consistent with the Air Quality Management Plan which provide incentives for car pooling, van pools, and the use of public transit to reduce traffic and associated noise levels in the City (I14.25).
- 14.3.8 Work with local agencies and businesses to provide public transit services which reduce traffic and associated noise (I14.25).
- 14.3.9 Work with public transit agencies to ensure that the buses, vans, and other vehicles used do not generate excessive noise level. (I14.17).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.4 Minimize the effect of air traffic noise generated by existing and future operations at Norton Air Force Base on residential and other noise sensitive land uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.4.1 Enforce noise mitigation compatibility requirements and standards of the Air Installation Compatible Use Zone (AICUZ) until airflight activities are terminated (I14.21, I14.22).
- 14.4.2 Establish noise compatibility standards for commercial aviation activities should Norton Air Force Base be re-used for this purpose (I14.21 and I14.22).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.5 Minimize the noise effect of railroad transit on residential uses and other sensitive land uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.5.1 Work with all railroad operators in the City to properly maintain lines and establish operational restrictions during the early morning and late evening hours to reduce impacts in residential areas and other noise sensitive areas (I14.23).
- 14.5.2 Work with all railroad operators to install noise mitigation features where operations impact existing adjacent residential or other noise-sensitive uses (I14.23).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.6 Minimize noise spillover from commercial and industrial uses into adjoining residential neighborhoods.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.6.1 Require that automobile and truck access to commercial properties abutting residential parcels be located at the maximum practical distance from the residential parcel (I14.5).
- 14.6.2 Require that all parking for commercial uses abutting residential areas be enclosed within a structure, buffered by walls, and/or limited hours of operation (I14.5, I14.6, I14.7, I14.13)
- 14.6.3 Adopt and enforce a standard for exterior noise levels for all commercial uses which prevents adverse levels of discernible noise on adjoining residential properties (I14.4, I14.5, I14.6, I14.11, I14.13).
- 14.6.4 Limit the use of leaf blowers, motorized lawn mowers, parking lot sweepers, or other high-noise equipment on commercial properties if their activity will result in noise which adversely affects abutting residential parcels (I14.6).
- 14.6.5 Require that the hours of truck deliveries to commercial properties abutting residential uses be limited unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour (I14.6).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.7 Minimize the noise impacts associated with the development of residential units above ground floor commercial uses where permitted.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.7.1 Require that commercial uses developed as part of a structure containing residences on upper floors not be noise intensive (I14.4).
- 14.7.2 Require that structures designed for commercial and residential uses prevent transfer of noise from the commercial to the residential use (I14.4, I14.10).

- 14.7.3 Require common walls and floors between commercial and residential uses be constructed to minimize the transmission of noise and vibration (I14.4).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.8 Minimize the impacts of construction noise on adjacent uses.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.8.1 Require that construction activities adjacent to residential units be limited as necessary to prevent adverse noise impacts (I14.6).
- 14.8.2 Require that construction activities employ feasible and practical techniques which minimize the noise impacts on adjacent uses (I14.6).

Objective

It shall be the objective of the City of San Bernardino to:

- 14.9 Maintain base line information regarding the noise environment of the City.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.9.1 Monitor and update data regarding the City's current and projected noise levels (I14.19).
- 14.9.2 Employ technological advances in noise impact mitigation as they become available (I14.20).

Objective

It shall be the objective of the City of San Bernardino to :

- 14.10 Ensure that buildings are constructed soundly to prevent adverse noise transmission between differing uses located in the same structure and individual residences in multi-family buildings.

Policies

It shall be the policy of the City of San Bernardino to:

- 14.10.1 Establish design criteria for commercial buildings which prevents transmission of significant and unacceptable noise between individual tenants and businesses (I14.4).
- 14.10.2 Establish design criteria for multi-family buildings which prevents transmission of significant and unacceptable noise between individual residential units (I14.4).

IMPLEMENTATION

The following lists the programs to implement noise policies contained in the preceding subsection of the plan. The capital "T" and number preceding each program are referenced by the policies which it implements.

Ordinance and Development Standards

- I14.1 Amend the development code to account for the policies and programs contained in this element.
- I14.2 Establish land use noise compatibility standards in the Development Code, based on the standards established by the California Department of Health, Office of Noise Control (Figure 56).
- I14.3 Incorporate in the development code requirements which limit maximum interior levels to of 45 dB(A) Ldn in all new residential construction and an exterior limit of 65 dB(A) Ldn for usable yard areas.
- I14.4 Incorporate into the development code standards and requirements which protect the inhabitants from impacts of exterior noise, prevent the transference of interior noise to the outside, prevent transference of noise between residential units and individual businesses in multi-tenant buildings, and prevent transference of noise between commercial and residential uses in mixed-use structures. These standards shall meet the minimum standards defined by the State Office of Noise Control. Standards for insulation, windows, building materials, walls and roofs shall be included.
- I14.5 Include in the development code standards and requirements for parking structures and lots to prevent noise effects on-site and on adjacent noise-sensitive uses. These should include the use of buffers containing landscape and sound walls, use of sound absorbing materials to minimize sound amplification and transmission, enclosure of the facade of parking structures facing a residence, limitation of the hours of operation of surface parking lots, and other appropriate techniques.
- I14.6 Include in the City's codes, restriction on the hours of operation of construction equipment, site maintenance equipment (leaf blowers, powered mowers, etc.), trash collection, street sweeping, and truck deliveries within and abutting the residential areas.
- I14.7 Incorporate in the Development Code requirements that all residential, health care, convalescent homes, religious facilities, and other "noise-sensitive" uses be reviewed (by City staff) for their presence in high noise impact areas of 65 dB(A) and greater (as depicted by the Existing and Future

Noise Contour Maps in this plan, or as updated by supplemental study). These within this contour and in lower noise levels within fifty (50) feet of this contour shall:

- a. conduct field measurements by a qualified environmental scientist/acoustical engineer to determine a more precise location of existing and projected future noise levels (based on traffic projections included in this plan or as accepted by the City); and
- b. identify and commit to measures to mitigate noise impacts (by siting of structure outside of high noise levels, insulation, attenuation walls or buffers, landscape, or other acceptable techniques) if within the 65 dB(A) contour.

I14.8 Incorporate the Development Code requirements that all industrial, commercial, and transportation uses be evaluated by City staff, in the development and environmental review process, according to their potential for generating noise levels which may incur noise levels which exceed an Ldn of 65 dB(A) on adjacent residential and "noise-sensitive" uses. Where such determination has been made by City staff, the developer shall:

- a. have an analysis of potential noise impacts prepared by a qualified environmental scientist/acoustical engineer; and
- b. identify and commit to measures to mitigate noise impacts (siting of use/operations, incorporation of noise walls, berms, or insulation, or other acceptable attenuation technique).

I14.9 Develop and adopt a community noise control ordinance to provide performance standards for future development and equipment modifications. The noise exposure information for existing and future conditions contained in this plan shall be used as the basis for the preparation of the ordinance. The ordinance shall be consistent with the "Model Community Noise Control Ordinance" prepared by the California Office of Noise Control, contained in Appendix A, with modifications to reflect local concerns and conditions.

Development Permit Review

I14.10 The City shall review development proposals according to their potential noise impacts on abutting uses and impacts by abutting uses in accordance with the standards and requirements stipulated by this Plan and incorporated in the Development Code.

- I14.11 Development projects shall be reviewed in accordance with maximum anticipated, or "worse case" noise conditions as the basis for land use decisions and design controls to prevent future incompatibilities.
- I14.12 The City shall review the street layout of proposed residential subdivisions with the objective of reducing traffic volumes and through trips as a means to reduce noise levels. The use of cul-de-sacs, one-way streets, curving streets, and other appropriate techniques shall be considered to reduce vehicular travel and speed, provided that engineering and safety requirements are met.
- I14.13 The City shall evaluate the noise impacts of truck deliveries on adjacent residential properties as a part of the development review procedure for all commercial and manufacturing uses. Where significant impacts are identified, the inclusion of noise mitigation techniques such as the use of a sound wall or enclosure of delivery areas shall be required.

Enforcement

- I14.14 The City shall aggressively pursue its code enforcement to respond to mitigate noise violations.
- I14.15 The City shall monitor and enforce implementation of noise mitigation requirements imposed as part of the project permitting process.

Equipment, Improvements

- I14.16 Request noise level specifications from vendors when purchasing new public equipment or vehicles to ensure that noise levels are not excessive.

Intergovernmental Coordination

- I14.17 Work with public agencies and institutions who maintain facilities in the City to ensure that the noise generated by their activities are limited to their site
- I14.18 Support the efforts of the California Department of Transportation and local transportation agencies in developing noise mitigation measures for freeways and highways including landscaping, sound barrier walls and elevating or depressing roads.

Administrative

- I14.19 Maintain a data file documentation existing and future noise conditions, using the contour maps contained in this Plan. As noise assessments are conducted for proposed projects or other noise studies are performed, the

- data base shall be updated. The noise data shall be updated entirely at least once each five years.
- I14.20 Review and update noise standards and criteria, as necessary, at least every five years to reflect actual noise conditions and technological noise control techniques.
- I14.21 Enforce the provisions of the Air Installation Compatible Use Zone (AICUZ) for Norton Air Force Base until operations are terminated or modified to a point that the standards and requirements are no longer valid.
- I14.22 Should commercial or cargo aviation activities be permitted on the reuse of Norton Air Force Base, determine protection noise impacts and establish land use compatibility standards.
- I14.23 Work with the railroad operators to determine when noise attenuations may be necessary due to the adjacency of railroad lines to residential uses.
- I14.24 The City shall consider a program to encourage the use of bicycles to reduce vehicular traffic and associated noise in San Bernardino as discussed in the Circulation Element. The City shall properly maintain existing bicycle routes, and accordingly, the proposed program shall: encourage the use of bicycle education programs; and initiate public awareness programs to promote and encourage the use of bicycles.
- I14.25 Implement Transportation Demand Management Programs to reduce vehicular travel and associated noise in the City in accordance with programs stipulated in the Circulation Element of the Plan and consistent with the Air Quality Management Plan.



15.0 WIND AND FIRE

INTRODUCTION

Historically, extreme wind conditions and wildfires have resulted in the loss of life and property in the planning area. As such, these hazards are an appropriate concern of the City's mandated Safety Element.

OVERVIEW OF EXISTING CONDITIONS

A. Wind

Historically, high velocity winds in the planning area have resulted in considerable structural damage. Portions of roofs have been broken and blown away and public utility structures such as power lines and traffic signals have been damaged. Structural damage has been most prevalent near the mouths of canyons of the San Bernardino Mountains.

High winds exacerbate brush fire conditions. Of the major fires in the San Bernardino Mountains, all have occurred during periods of high winds.

The highest velocities area associated with downslope canyon and Santa Ana winds. The canyon winds blow out of the higher elevations of the mountains into the valley when there is an extreme temperature difference between the two areas. Canyon wind velocities over 90 miles per hour during the Panorama Fire and over 100 miles per hour during the 1970 fire have been recorded.

The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds and usually occur on a region-wide basis during late summer and early fall. They are dry, warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of the canyons and dissipate as they spread across the valley floor. Santa Ana winds generally coincide with the drought period in the region and the period of highest fire danger in the adjacent San Bernardino Mountains.

Extreme wind velocities for the City are listed in Table 66 (page 5-87) of the General Plan Technical Background Report.

The high wind velocity and property damage potential have resulted in the northern half of the City, adjacent to the mountains being classified by the City as a "High Wind Area" (Figure 59). In this area the City applies stringent conditions for the construction of buildings and public facilities.

FIGURE 59
WIND HAZARDS



ENVICOM CORPORATION

N 0 3000 9000 ft

B. Fire

The San Bernardino planning area is subject to wildland fires due to the steep terrain and highly flammable chaparral vegetation of the foothills of the San Bernardino Mountains and high winds that correspond with seasonal dry periods. Major fires have endangered the City on numerous occasions in the past and in several instances, have spread into the City and caused extensive damage.

The U.S. Department of Forestry has records of wildland fires dating back to the beginning of the 20th century. The data indicates that fires occur on a regular basis almost every year and that very large fires occur fairly regularly every ten years. According to the Department of Forestry, the large fires correspond to the age of the vegetation which, if not burned regularly, begins to accumulate dead material that is more easily ignited and spreads fire faster than newer growth.

Consequently, a decade will pass with few fires followed by a decade with several large fires. The occurrence of the largest fires also corresponds to periods of extremely high wind conditions. The largest fires in recent history are indicated on Figure 60. Much of the burn areas overlap. Consequently for some fires only the extremities are depicted.

The large fires that are spread by winds periodically approaching and exceeding 90-100 miles per hour are considered uncontrollable by the California Department of Forestry and U.S. Forest Service. Other areas in southern California are being burned off periodically by way of controlled burns to remove older vegetation. The controlled burn process is not used in the San Bernardino Mountains because of the unpredictability and force of the winds in the area which could make controlled burns a potential hazard. As a consequence, the San Bernardino Mountains will experience wildland fires on a regular basis and approximately every ten years it can be expected to experience a very large fire that will burn out of control for an extended period of time.

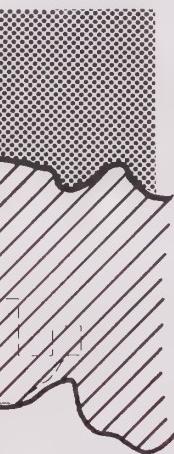
In recognition of these hazards, the City of San Bernardino participated in the preparation of the Foothill Communities Protective "Greenbelt" Program in 1983 in collaboration with the County of San Bernardino, California Department of Forestry, Foothill Fire Protection District, West End Resource Conservation District, East Valley Resource Conservation District, U.S. Soil Conservation Services, and U.S. Forest Service. The purpose of the program is to reduce fire, flood, and erosion losses in the wildland/urban interface in the foothills of the San Bernardino Valley. The program was prompted, in part, by the Panorama Fire which occurred in 1980.

The interface zone is divided into three categories of fire hazard as shown on Figure 61. These relate to terrain, accessibility, soil stability, and vegetation. The program prescribes development standards to reduce fire risks; including roadway characteristics, area accessibility, building construction (materials and configuration), location and siting of structures, landscape and irrigation, vegetation management, and establishment of a "greenbelt".

FIGURE 60
HISTORIC FIRE BURN AREAS



- 1980 Fire Burn Area Boundary
1979 Fire Burn Area Boundary
1970 Fire Burn Area Boundary
1938 Fire Burn Area Boundary



(Source: United States Forest Service)

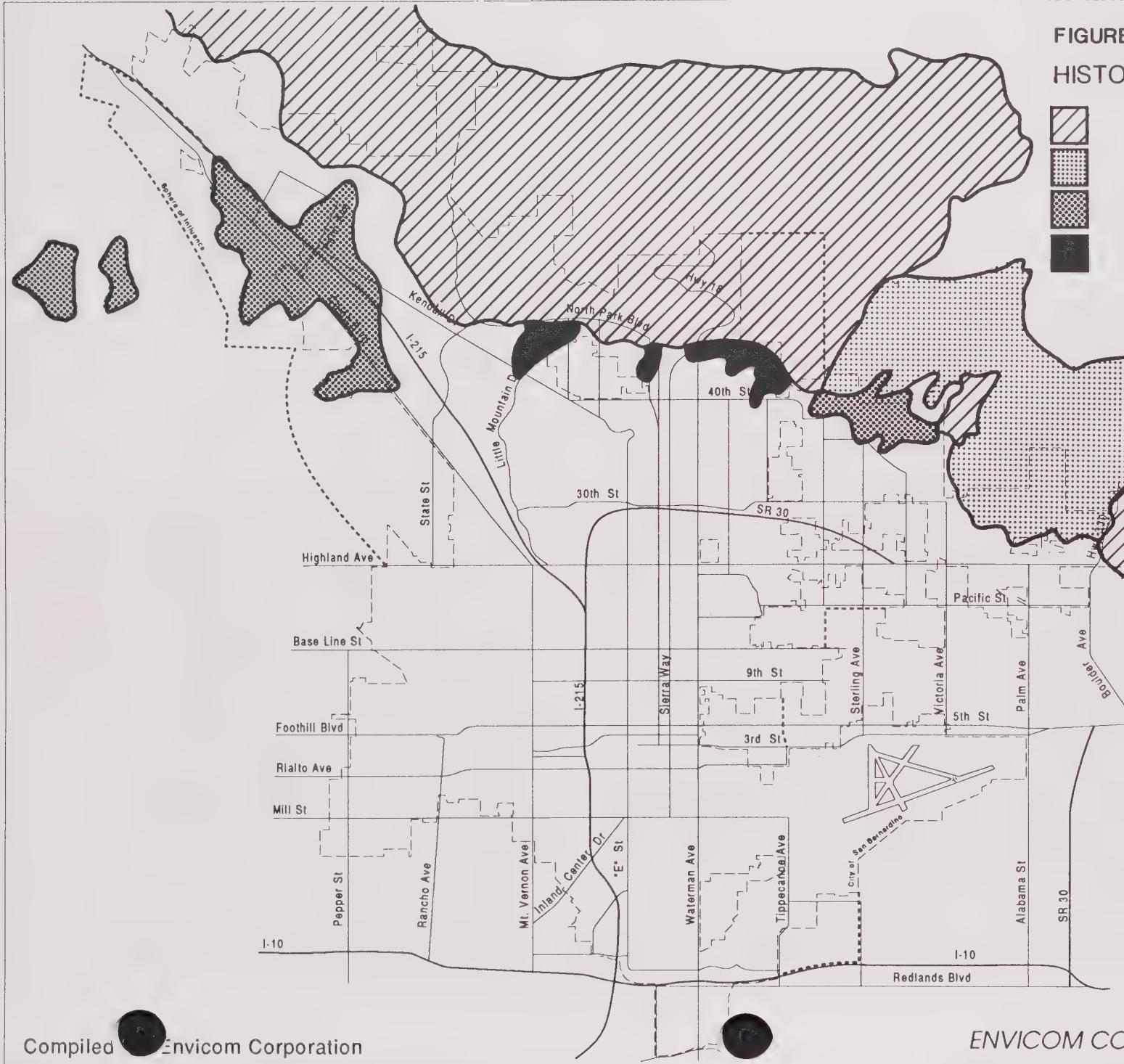
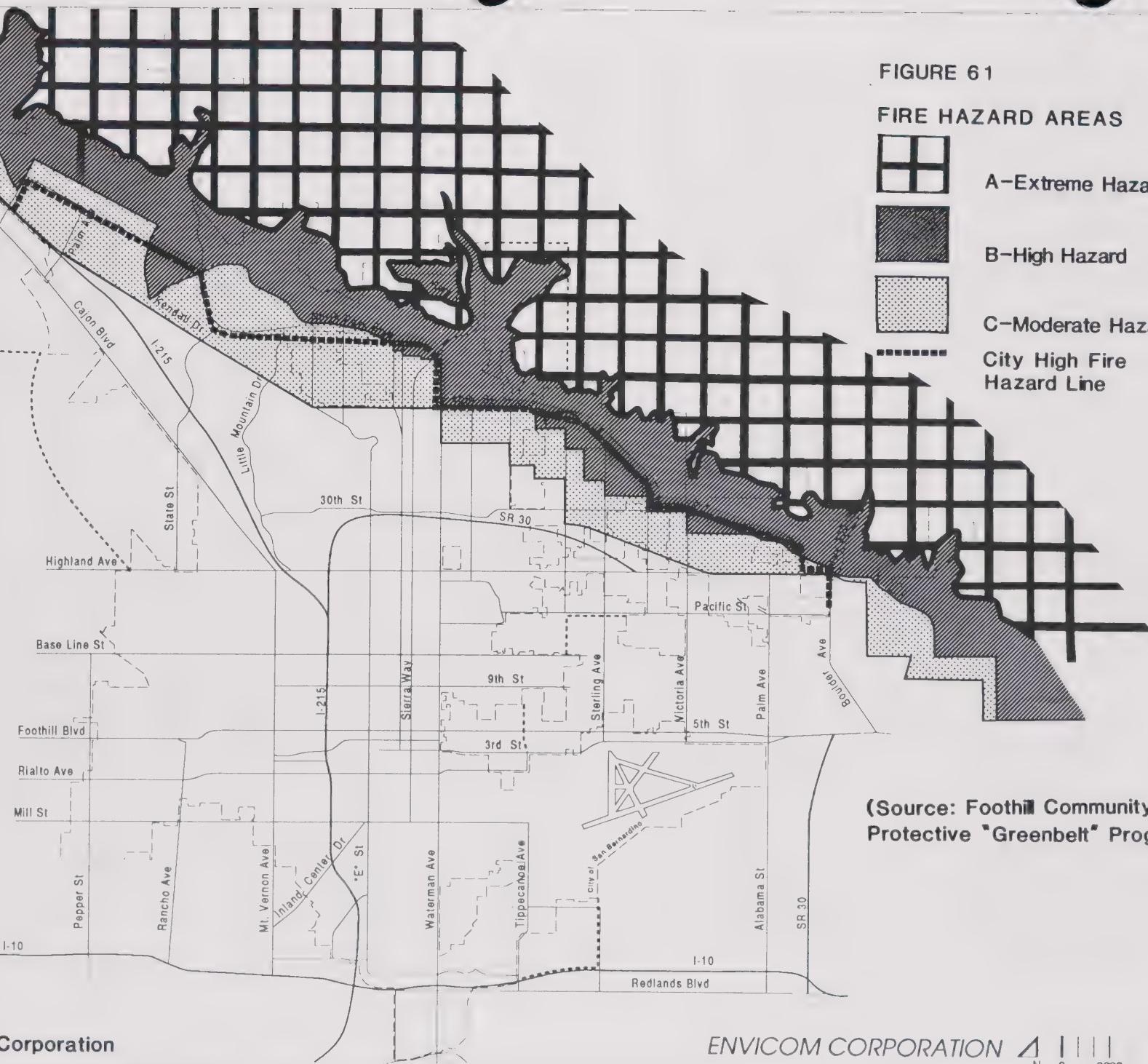


FIGURE 61
FIRE HAZARD AREAS

- A-Extreme Hazard
 - B-High Hazard
 - C-Moderate Hazard
- City High Fire Hazard Line



The Foothill Communities Protective "Greenbelt" Program has not been adopted by the Mayor and Common Council. However, it was used as a resource document in the preparation of the Verdemont Area Plan. Many of the recommendations of the program are contained in the Verdemont Plan as fire prevention policy in its hillside areas. The "Greenbelt" Program was adopted by the County of San Bernardino and provisions of the program have been established as requirements for development in the program areas within the unincorporated county.

ISSUES

A. WIND

1. The planning area is subject periodically to extremely high winds which have historically resulted in significant property damage. The occurrence of high velocity winds during brush fires has compounded this problem.
2. The most significant wind problems occur at the canyon mouths and valleys extending downslope from the San Bernardino Mountains.
3. Commitments and continued market pressures for new development in the foothill areas and valleys will expose buildings and population to significant wind hazards.
4. Very high winds are frequently experienced outside of the designated high wind area.

B. FIRE

1. The characteristics of the San Bernardino Mountains and winds in the area indicate that large uncontrollable fires on a recurring basis are inevitable.
2. The spread of fire in foothill locations is increased by the number of structures and encroachment of new development in the hillside areas. Specific concerns include the density of development, spacing of structures, brush clearance, building materials, access to buildings by fire equipment, adequacy of evacuation routes, property maintenance, and water availability.
3. Some areas have been identified by the Foothill Communities Protective "Greenbelt" Program as unbuildable for adequate fire safety. However, previous development commitments and market pressures to extend new development further into hillside areas may compound this problem.
4. Adequate water systems for fire suppression are identified in the Foothill Communities "Greenbelt" Program as essential for fire suppression and protection of property. The capability of the water systems and procedures for regular reevaluation for existing and new development is a significant issue.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for wind and fire hazards in the City of San Bernardino. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "T" and number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 15A Protect people and property from the adverse impacts of winds.

Objective

It shall be the objective of the City of San Bernardino to:

- 15.1 Ensure that buildings are constructed and sited to withstand wind hazards.

Policies

It shall be the policy of the City of San Bernardino to:

- 15.1.1 Require that development in the High Wind Hazard Area, as designated on the Environmental Resources/Hazards Composite Overlay (Figure 41), be designed and constructed to withstand extreme wind velocities (I15.1 and I15.4).
- 15.1.2 Review the structural design requirements for wind in the Building Code at least once each five years and update, as necessary, to reflect wind conditions and property damage which have been experienced and current construction technology (I15.3).
- 15.1.3 Review proposed development in the High Wind Hazard Area to ensure that impacts of wind are mitigated (I15.1 and I15.4).
- 15.1.4 Require that structures be sited to prevent adverse funneling of wind on-site and on adjacent properties (I15.1 and I15.4).
- 15.1.5 Require that multi-story residential, commercial, and industrial buildings be designed to prevent wind funnel affects around their base and in passageways (I15.3 and I15.4).
- 15.1.6 Construct public infrastructure (lighting poles, street lights, bridges, etc.) to withstand extreme wind velocities in High Wind Hazard areas (I15.9).

- 15.1.7 Maintain police, fire, medical, and other pertinent programs to respond to wind-caused emergencies (I15.6).

Goal

It shall be the goal of the City of San Bernardino to:

- 15B Protect people and property from brush fire hazards.

Objective

It shall be the objective of the City of San Bernardino to:

- 15.2 Ensure that buildings are constructed, sites are developed, and vegetation and natural areas are managed to minimize wildfire risks.

Policies

It shall be the policy of the City of San Bernardino to:

- 15.2.1 Require that development in the High Fire Hazard Area, as designated on the Environmental Resources/Hazards Composite Overlay (Figure 41) adhere to the development standards specified in the Foothill Communities Protective "Greenbelt" Program for protection of property (I15.1-I15.3, and I15.5).
- 15.2.2 Work with the U.S. Forest Service and private land owners to maintain landscape, provide buffers, and reduce fire hazards in foothill areas of the City (I15.1 and I15.7).
- 15.2.3 Study the potential acquisition of private lands for establishment of green-belt buffers adjacent to existing development, where such buffers cannot be created by new subdivision (I15.7).
- 15.2.4 Enforce fire inspection, code compliance, and weed abatement while maintaining sensitive environmental habitats as prescribed for the Biological Resource Management Area, Policies 10.2.3, 10.3.1, and 10.3.3 (I15.8).
- 15.2.5 Maintain police, fire, medical, and other pertinent programs to respond to wildfire emergencies (I15.6).
- 15.2.6 Require that all new construction and the replacement of 50 percent and greater of the roofs of existing structures use fire retardant materials (I15.2 and I15.3).

IMPLEMENTATION PROGRAMS

The following lists the programs to implement wind and fire hazard policies contained in the preceding subsection of the plan. The capital "I" and number preceding each program are referenced by the policies which it implements.

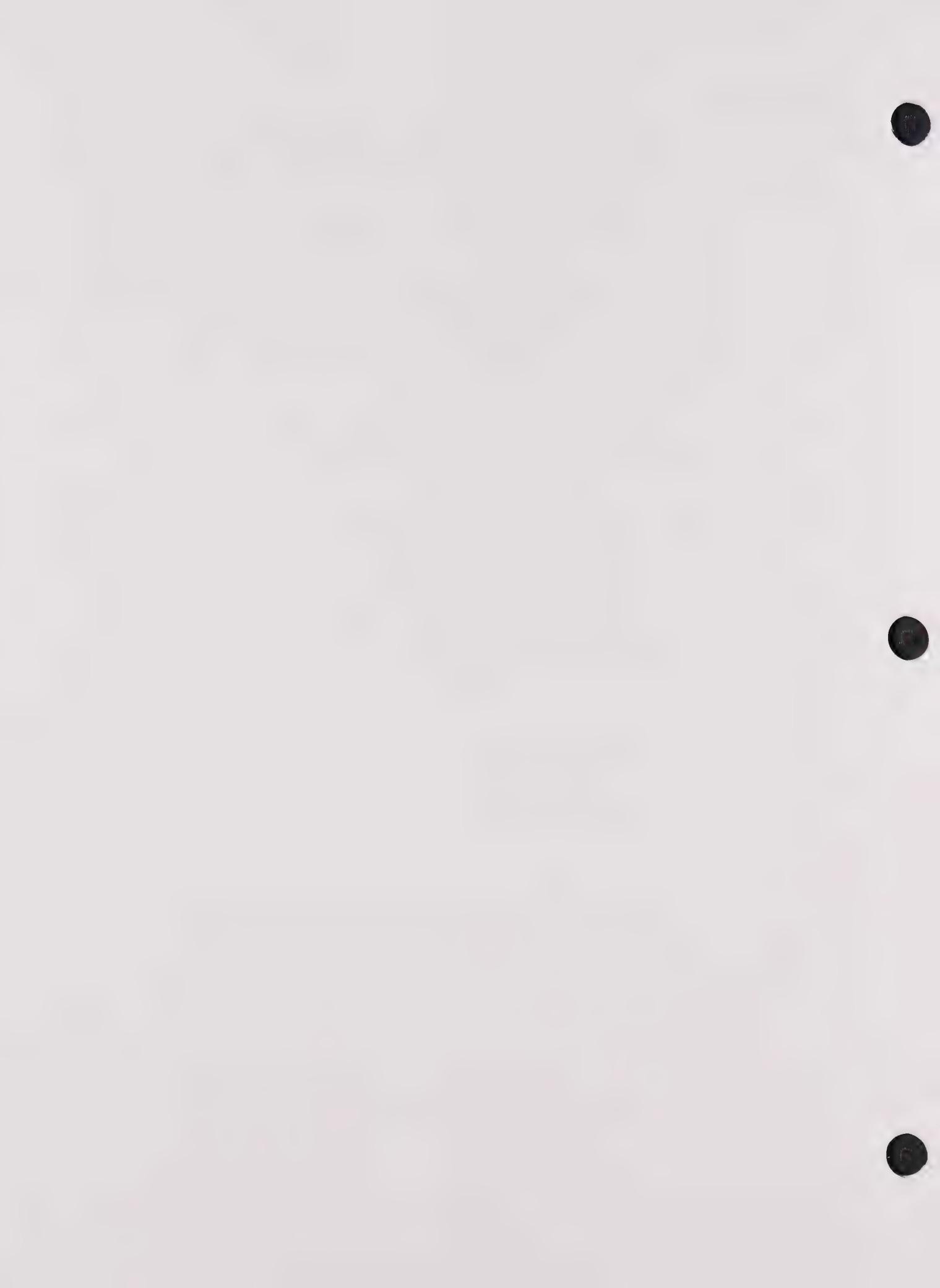
Ordinances

- I15.1 Incorporate into the City's Development (Zoning/Subdivision) Code the following standards, guidelines, and requirements to mitigate potential wind and fire hazards:
- a. Siting of structures in wind protected or sheltered areas; to the extent feasible and practical on the site.
 - b. Grouping of structures in clusters to provide wind protection to the extent feasible and practical on the site.
 - c. Incorporation of berms, landscape, or other elements to reduce wind exposure; to the extent feasible and practical on the site.
 - d. Siting of structures so that they do not "funnel," "eddy," or intensify wind effects on adjacent properties.
 - e. Incorporation of the provisions of the Foothill Communities "Greenbelt" Program providing for the siting of structures, site access, availability of water supply, use of fire retardant vegetation, maintenance of landscape, incorporation of setbacks or "greenbelts" from natural vegetation, erosion control, and other measures to reduce fire hazards.
 - f. Wildland fuel management measures should include fuel breaks, protection of natural species, replacement with fire resistant species, permanently maintained open space buffers and prescribed burning. Land owners should be required to keep vegetation cleared or maintain fire resistant species surrounding all structures and roads.
 - g. Erosion control measures should include compaction requirements, grading and erosion control plans and fire resistant vegetation and maintenance.
 - h. Non-combustible, reflective material should be used for signage to increase visibility to facilitate street and site identification.
 - i. Roadside and building vegetation clearance shall have weed abatement and minimum clearance distances.

- j. Water supply sources shall have access to static water supplies, and adequate access to hydrants.
- I15.2 Review the city's existing High Fire Hazard Ordinance and incorporate pertinent requirements of the Foothill Communities Protective "Greenbelt" Program.
- I15.3 Continue and expand, as appropriate, the City's Building Code requirements for the design of structures to minimize wind and fire hazard designated risk areas. These shall include, but not be limited to, the following:
- a. Design of structures to withstand extreme wind velocities.
 - b. Prohibition of the use of structural and site elements whose characteristics would be vulnerable to damage during extreme winds.
 - c. Design of structures to preclude the creation of wind tunnel effects at its base, on adjacent public open spaces, and in pedestrian pathways.
 - d. Inclusion of pertinent standards and requirements of the Foothill Communities Protective "Greenbelt" program; including those for the use of fire resistant construction; non-combustible roofing, fencing, and decking; fire walls; adequate placement of vents; and safety window glass.
- At least once each three years the City shall review its Building Code to evaluate its effectiveness in mitigating wind and fire hazards and reflection of current technologies and construction methods. As appropriate the Code shall be revised to account for any deficiencies.
- ### Development Review
- I15.4 Proposed development projects in the High Wind Hazard Area shall be reviewed according to their conformance to the policies contained in this Plan and standards and requirements of the Development Code. Site plans and architectural schematics shall be reviewed for their ability to provide wind protection to residents and business employees and customers.
- I15.5 Proposed development projects in the High Fire Hazard Area shall be reviewed for their conformance to the policies contained in this Plan and standards and requirements of the Development Code.

Administrative

- I15.6 The City shall ensure that incidents resulting from wind and fire conditions are addressed in the City's Emergency Preparedness Plan.
- I15.7 The City shall conduct a study to determine the means of establishing a greenbelt buffer separating residential development in the foothills from chaparral and other native vegetation. This may include property easements and setback in new subdivisions, acquisition of lands adjacent to existing development, establishment of a "fire break" or National Forest lands, or other techniques. Methods to fund acquisition and maintenance of the "greenbelt" shall be identified. These may development fees and establishment of assessment districts.
- I15.8 Pursue enforcement of the City's code requirements for weed abatement, site maintenance, and other fire hazard mitigations.
- I15.9 Design and construct public improvements to withstand extreme wind velocities in the High Wind Hazard Area. The structural specification of traffic signals, public signage, street lighting, and other infrastructure acquired from outside vendors and contractors shall be carefully reviewed to ensure that they meet these requirements.
- I15.10 Review the current delineation of the Wind Hazard Area (Figure 59) and revise as necessary to reflect recent wind measurements and data.



16.0 FLOODING

INTRODUCTION

Flooding represents a potential hazard to the population and buildings of a city and, as such, is a concern of the State-mandated public safety element. Additionally, state law requires that areas subject to flooding be addressed as a component of the land use element. This section of the plan addresses the risks of flooding due to the natural physiography, rainfall, and runoff of the City.

BACKGROUND DATA AND ANALYSES

The 100-year floodplain within the planning area is depicted on Figure 62, as by the Federal Emergency Management Agency Flood Insurance Rate maps. The 100-year floodplain, for the most part, is confined to storm channels, debris basins, and between levees. A few areas, including the Base Line Street and Sterling Avenue area, Mountain View Avenue and Electric Avenue area, and south of Redlands Boulevard, east of Hunts Lane, are identified as low areas within the 100-year floodplain. A description of existing flood control facilities is presented in the Utilities Element, Subsection "C" of Section 7.0 of this Plan.

The City of San Bernardino has established design criteria for both major and local drains within the City. Major drains are systems using 36-inch diameter, or larger pipes (or equivalent channels) and are identified on the comprehensive storm drain plans, or are of regional significance by providing additional capacity for off-site flows of specific development projects. Local drains are systems using less than 36-inch diameter conduits, and provide drainage for specific projects.

Major drains in developed areas shall have a pipeline capacity to contain 25-year storm flows provided that the 50-year storm flows can be contained within the curbed portion of the street and the 100-year storm flows can be contained within the street right-of way. Major drains in foothill areas where downstream systems are lacking and street systems are not present, shall be designed to convey 100-year flows within a pipe or channel.

Local drains in developed areas shall have a pipeline capacity to contain 10-year storm flows provided that the 50-year storm flows can be contained within the curbed portion of the street and the 100-year storm flows can be contained within the street right-of way. Local drains in foothill areas where downstream systems are lacking and street systems are not present, shall be designed to convey 25-year storm flows.

Basements and underground utility vaults experience flooding in areas between the Santa Ana River and downtown due to the high groundwater table.



FIGURE 62

100 - YEAR FLOOD PLAIN



Flood Area for One
Hundred Year Flood

(Source: Federal Emergency Management Agency Flood Insurance Rate Maps)

ISSUES

Significant flooding issues affecting the planning area include the following:

- A. Transmission of storm flows within the street right-of-way may cause localized flooding during storms. This may make some roads impassable during the storm event.
- B. The 100-year flood is contained within the Flood Control System, with a few minor exceptions (as discussed in the Storm Drainage Section of the Utilities Element).
- C. Streets are designed to accommodate storm flow, and the perception of residents may deem this flooding.

GOALS, OBJECTIVES, AND POLICIES

The following presents the goals, objectives, and policies for flooding in the City of San Bernardino. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

Goal

It shall be the goal of the City of San Bernardino to:

- 16A Protect the lives and properties of residents and visitors of the City from flood hazards.

Objective

It shall be the objective of the City of San Bernardino to:

- 16.1 Maintain control systems and restrict development to minimize hazards due to flooding.

Policies

It shall be the policy of the City of San Bernardino to:

- 16.1.1 Use natural watercourses as the City's primary flood control channels whenever feasible (I16.1).
- 16.1.2 Keep natural drainage courses free of obstructions (I16.1).
- 16.1.3 Prohibit land use development within the 100-year flood zone unless adequate mitigation is provided against flood hazards (I16.1).
- 16.1.4 Implement flood control improvements in accordance with Public Utility Policies 7.9.1 through 7.9.9 (I16.2).

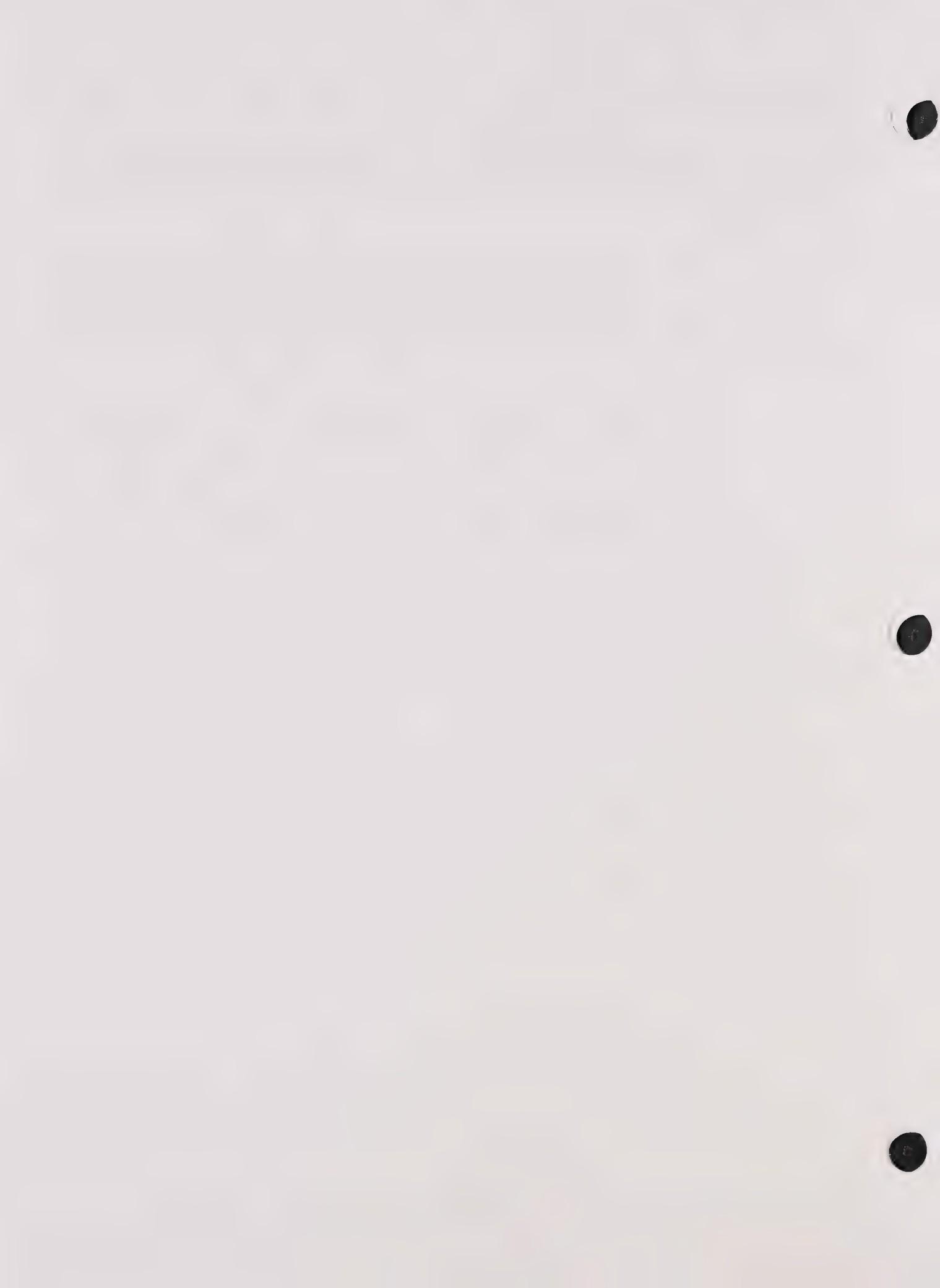
IMPLEMENTATION PROGRAMS

The following programs implement the flooding policies for the City of San Bernardino. Each program is preceded by a capital "I" and a number which is referenced by the pertinent policy which it implements in the preceding section (noted in parentheses at the close of each policy).

- I16.1 Development proposals for projects within the 100-year flood plain shall be reviewed for consistency with Federal Emergency Management Agency requirements. Projects not consistent with the Chapter 15.72 of the Municipal Code, "Flood Control Measures," may require modification to be consistent.

A site specific hydrology study which meets the standards of the City of San Bernardino and the San Bernardino County Flood Control District shall be prepared by a qualified civil engineer as a prerequisite to the approval of projects within the 100-year flood plain. The hydrology study shall be reviewed by City and Flood Control District staff. Staff recommendations regarding the facilities necessary to mitigate flooding hazards resulting from project implementation and/or impacts to flood facilities shall become conditions of project approval. Mitigation against flooding hazards must be provided prior to the issuance of certificates of occupancy.

- I16.2 Implement Storm Drainage and Flood Control Programs I7.6 and I7.20-I7.23.



A P P E N D I C E S



APPENDIX A

Noise and Its Effects on People,
Techniques for Noise Control, and
Model Community Noise Control Ordinance

State of California Department
of Health, Office of Noise Control



NOISE AND ITS EFFECTS ON PEOPLE

Noise is often defined simply as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Researchers for many years have grappled with the problem of translating objective measurements of sound into directly correlatable measures of public reaction to noise.

The descriptors of community noise in current use are the results of these efforts, and represent simplified, practical measurement tools to gauge community response. Before elaborating on these descriptors, it is useful to first discuss some fundamental concepts of sound.

Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound.

The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, now called Hertz (Hz) by international agreement.

The speed of sound in air is approximately 770 miles per hour, or 1,130 feet per second. Knowing the speed and frequency of a sound, one may calculate its wavelength, the physical distance in air from one compression of the atmosphere to the next. An understanding of wavelength is useful in evaluating the effectiveness of physical noise control devices such as mufflers or barriers, which depend upon either absorbing or blocking sound waves to reduce sound levels.

To measure sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, defined a 0 dB. Other sound pressures are compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The logarithmic scheme also reflects the exponential manner in which the ear reacts to sound. The formula for calculating sound pressure level (in decibels) is:

$$\begin{aligned} \text{SPL} &= 20 \log p/p_0, \text{ dB, or} \\ &= 10 \log (p/p_0)^2, \text{ dB;} \\ \text{where: } \text{SPL} &= \text{sound pressure level, dB} \\ p &= \text{measured pressure} \\ p_0 &= \text{reference pressure (20 micropascals)} \end{aligned}$$

Use of the decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) are uniform throughout the scale, corresponding closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, in the range of usual environmental noise levels, perception of loudness is relatively predictable,

and can be approximated by weighting the frequency response of a sound level measurement device (called a sound level meter) by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. In terms of community response, it is generally valid that a change in noise level of at least 5 dBA is required before any noticeable change in community response would be expected. A 10 dBA change in noise level is perceived as being subjectively a doubling in loudness, which would likely result in an adverse public reaction. Typical A-weighted sound levels generated by noise sources commonly found in the community are illustrated in Figure 4.

It is common to describe community noise in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent energy sound level (L_{eq}), which is the sound level corresponding to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptors such as L_{dn} and CNEL, and shows very good correlation with community response to noise.

The two most common noise descriptors in use today are the L_{dn} and CNEL scales. L_{dn} (day-night average level) is based upon the average hourly L_{eq} over a 24-hour day, with a 10 decibel penalty applied to nighttime (10 p.m. to 7 a.m.) L_{eqs} . The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were subjectively twice as loud as daytime exposures. CNEL (Community Noise Equivalent Level) is also based upon the average hourly L_{eq} over a 24-hour day, except that an additional penalty of approximately 4.5 decibels is applied to evening (7 p.m. to 10 p.m.) hourly L_{eqs} . The CNEL scale was developed for the California Airport Noise Regulations, and is applied specifically to airport noise assessment. The L_{dn} scale is a simplification of the CNEL concept. For a given situation, the two scales will generally agree within plus or minus 1 dB. Like the L_{eq} , these descriptors are averages and tend to disguise variations in the noise environment. Furthermore, because they presume increased evening or nighttime sensitivity, they are best applied as criteria for land uses where nighttime noise exposures are critical to the acceptability of the noise environment, such as residential developments.

Noise in the community has often been cited as being a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from the interference with human activities such as sleep, speech, recreation, and tasks demanding concentration or coordination. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases and the acceptability of the environment for people decreases. This decrease in acceptability and the threat to public well-being is the basis for land use planning policies directed towards the prevention of exposure to excessive community noise levels.

Examples of Noise Levels

<u>Level, dBA</u>	<u>Activity</u>	<u>Subjective Evaluations</u>
140	Sonic booms	
130	Threshold of pain	
120	Threshold of discomfort	{ Deafening
	Amplified music	
110	Commercial jet takeoff at 200 feet	
100	Auto horn at 10 feet	
90	Noisy factory interior	{ Very loud
	Heavy truck at 50 feet	
80	New automobile at 50 feet	
70	Stenographic room	{ Loud
60	Normal conversation at 6 feet	
50	Office interior	{ Moderate
40	Soft radio music	
30	Residence interior	{ Faint
20	Whisper at 6 feet	
10	Human breathing	
0	Threshold of audibility	{ Very faint

TECHNIQUES FOR NOISE CONTROL

Any noise problem may be considered as being composed of three basic elements: the noise source, a transmission path, and a receiver. Local control of noise sources is practical only with respect to fixed sources (e.g., industrial facilities, outdoor activities, etc.), as control of vehicular sources is generally preempted by federal or state law. Control of fixed noise sources is usually best obtained by enforcement of a local noise control ordinance. The emphasis of noise control in land use planning is usually placed upon acoustical treatment of the transmission path and the receiving structures.

The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. The problem should be defined in terms of appropriate criteria (e.g., L_{dn} , L_{eq} , L_{max}), the location of the sensitive receiver (inside or outside), and when the problem occurs (daytime or nighttime). Noise control techniques should then be selected to provide an acceptable noise environment for the receiving property while remaining consistent with local aesthetic standards and practical structural and economic limits. Basic noise control techniques include the following:

USE OF SETBACKS

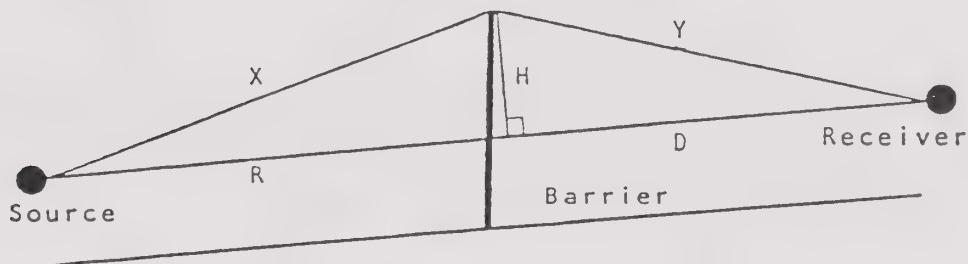
Noise exposure may be reduced by increasing the distance between the noise source and receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, etc. The available noise attenuation from this technique is limited by the characteristics of the noise source, but is generally 4 to 6 dBA per doubling of distance from the source.

USE OF BARRIERS

Shielding by barriers can be obtained by placing walls, berms or other structures, such as buildings, between the noise source and the receiver. The effectiveness of a barrier depends upon blocking line-of-sight between the source and receiver, and is improved with increases in distance the sound must travel to pass over the barrier as compared to a straight line from source to receiver. The difference between the distance over a barrier and a straight line between source and receiver is called the "path length difference," and is the basis for calculating barrier effectiveness. Figure A illustrates the

principles of noise control by barriers. The path length difference is the difference between $(R + D)$ and $(X + Y)$.

FIGURE A



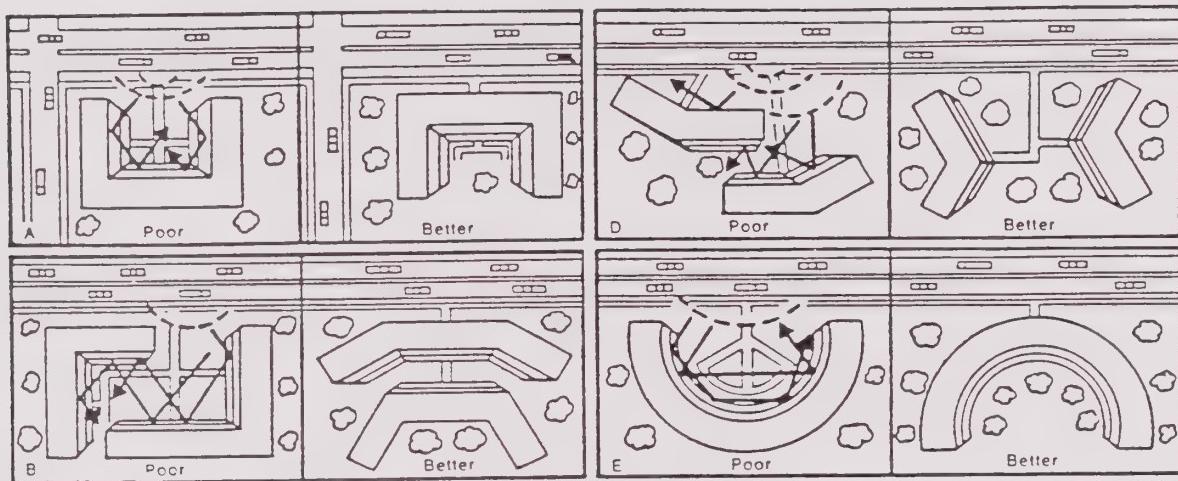
Barrier effectiveness depends upon the relative heights of the source, receiver and barrier. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location yields a smaller path length difference for a given increase in barrier height than does a location closer to either source or receiver.

For maximum effectiveness, barriers must be continuous and relatively airtight along their length and height. To ensure that sound transmission through the barrier is insignificant, barrier mass should be about 4 lbs./square foot, although a lesser mass may be acceptable if the barrier material provides sufficient transmission loss in the frequency range of concern. Satisfaction of the above criteria requires substantial and well-fitted barrier materials, placed to intercept line-of-sight to all significant noise sources. Earth, in the form of berms or the face of a depressed area, is also an effective barrier material.

The attenuation provided by a barrier depends upon the frequency content of the source. Generally, higher frequencies are attenuated (reduced) more readily than lower frequencies. This results because a given barrier height is relatively large compared to the shorter wavelengths of high frequency sounds, while relatively small compared to the longer wavelengths of the low frequency sounds. The effective center frequency for traffic noise is usually considered to be 550 Hz. Railroad operations, aircraft and industrial noise sources emit noise with differing frequency content, so the effectiveness of a

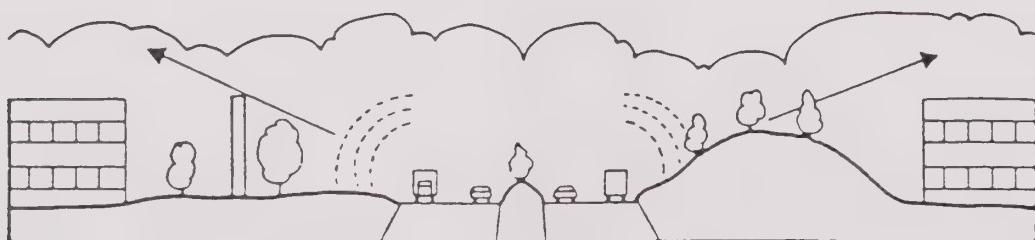
buildings with the narrow end facing the noise source, reducing the total area of the building requiring acoustical treatment. Some examples of building orientation to reduce noise impacts are shown in Figure B.

FIGURE B



Another option in site design is the placement of relatively insensitive land uses, such as commercial or storage areas, between the noise source and a more sensitive portion of the project. Examples include development of a commercial strip along a busy arterial to block noise affecting a residential area, or providing recreational vehicle storage along the noise-impacted edge of a mobile home park. If existing topography or development adjacent to the project site provides some shielding, as in the case of an existing berm, knoll or building, sensitive structures or activity areas may be placed behind those features to reduce noise control costs (Figure C).

FIGURE C



barrier will vary for each of these sources. Frequency analysis is necessary to properly calculate barrier attenuation of noise from sources other than highway traffic.

There are practical limits to the noise reduction provided by barriers. For highway traffic noise, a 5 to 10 dBA noise reduction may often be reasonably attained. A 15 dBA noise reduction is sometimes possible, but a 20 dBA noise reduction is extremely difficult to achieve. Barriers may be provided in the form of walls, berms, or berm/wall combinations. The use of an earth berm in lieu of a solid wall will provide up to 3 dBA additional attenuation over that attained by a solid wall alone, due to the absorption provided by the earth. Berm/wall combinations offer slightly better acoustical performance than solid walls, and are often preferred for aesthetic reasons.

Another form of barrier is the use of a depressed noise source location, such as depressed roadways or depressed loading areas in shopping centers. The walls of the depression serve to break line-of-sight between the source and receiver, and will provide some absorption if left in earth or vegetative cover.

SITE DESIGN

Buildings can be placed on a project site to shield other structures or areas, to remove them from noise-impacted areas, and to prevent an increase in noise level caused by reflections. The use of one building to shield another can significantly reduce overall project noise control costs, particularly if the shielding structure is insensitive to noise. As an example, carports or garages can be used to form or complement a barrier shielding adjacent dwellings or an outdoor activity area. Similarly, one residential unit can be placed to shield another so that noise reduction measures are needed for only the building closest to the noise source. Placement of outdoor activity areas within the shielded portion of a building complex, such as a central courtyard, can be an effective method of providing a quiet retreat in an otherwise noisy environment. Patios or balconies should be placed on the side of a building opposite the noise source, and "wing walls" can be added to buildings or patios to help shield sensitive uses.

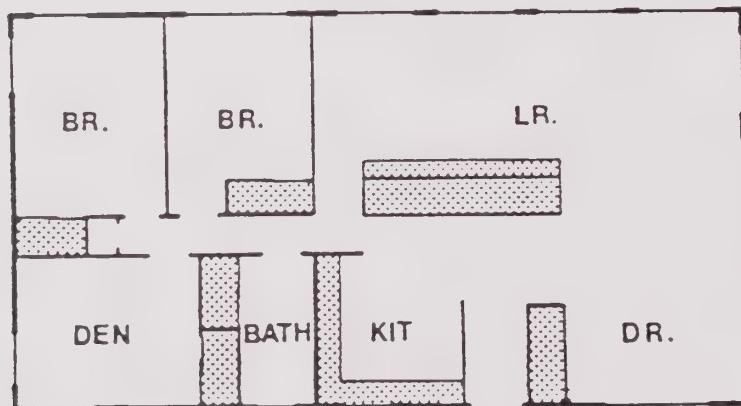
Where project design does not allow using buildings or other land uses to shield sensitive uses, noise control costs can be reduced by orienting

Site design should also guard against the creation of reflecting surfaces which may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dBA. The open end of a "U"-shaped building should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise back to a noise-sensitive area unless carefully located. Avoidance of these problems, as well as attaining an effective, aesthetic site design requires close coordination between local agencies, the project engineer and architect, and the acoustical consultant.

UNIT DESIGN

When structures have been located to provide maximum noise reduction by barriers or site design, noise reduction measures may still be required to achieve an acceptable interior noise environment. The cost of such measures may be reduced by placement of interior dwelling unit features. For example, bedrooms, living rooms, family rooms and other noise-sensitive portions of a dwelling can be located on the side of the unit farthest from the noise source, as shown by Figure D.

FIGURE D



HIGHWAY

Bathrooms, closets, stairwells and food preparation areas are relatively insensitive to exterior noise sources, and can be placed on the noisy side of a unit. When such techniques are employed, noise reduction requirements for the building facade can be significantly reduced, although the architect must take care to isolate the noise impacted areas by the use of partitions or doors.

BUILDING DESIGN

In some cases, external building facades can influence reflected noise levels affecting adjacent buildings. This is primarily a problem where high-rise buildings are proposed, and the effect is most evident in urban areas, where an "urban canyon" may be created. Bell-shaped or irregular building facades, setbacks and attention to building orientation can reduce this effect.

NOISE REDUCTION BY BUILDING FACADES

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building facades. Standard residential construction practices provide 12-15 dBA noise reduction for building facades with open windows, and 20-25 dBA noise reduction when windows are closed. A 20 dBA outdoor-to-indoor noise reduction can be obtained by requiring that the building design include adequate ventilation systems, allowing windows on a noise-impacted facade to remain closed under any weather condition.

Where greater noise reduction is required, acoustical treatment of the building facade is necessary. If window area is critical, use of acoustical glazing (thicker glass or increased air space between panes), fixed (non-movable) glazing and reduction of windows are effective noise control techniques. Standard energy-conservation double-pane glazing with an 1/8" or 1/4" air-space is not considered acoustical glazing, as its sound transmission loss may be less than single-pane 1/8" glazing. Noise transmitted through walls can be reduced by increasing wall mass (using stucco or brick in lieu of wood siding), isolating wall members by the use of double- or staggered- stud walls, or mounting interior walls on resilient channels.

Noise control measures for exterior doorways include reducing door area, using solid-core doors, and acoustically sealing door perimeters with suitable gaskets. Roof/ceiling treatments may include the use of plywood sheathing under roofing materials or resilient channels for ceiling panels. Vent ducts and openings for attic or subfloor ventilation may also require acoustical treatment. Tight-fitting fireplace dampers and glass doors may be needed in aircraft noise-impacted areas.

Whichever noise control techniques are employed, it is essential that attention be given to installation of weatherstripping and caulking of joints.

Acoustical design for building facades should be based upon analysis of the level and frequency content of the noise source. The transmission loss of each building component should be defined, and the composite noise reduction for the facade calculated, accounting for absorption in the receiving room. A one-third octave band analysis is a definitive method of calculating the A-weighted noise reduction of a facade. Requirements for transmission loss analyses are outlined by Section 2-3501 of the California Administrative Code, Title 24.

A common measure of transmission loss is the Sound Transmission Class (STC). STC ratings are not directly comparable to A-weighted noise reduction, and must be corrected for the spectral content of the noise source.

USE OF VEGETATION

It is often supposed that trees and other vegetation can provide significant noise attenuation. However, approximately 100 feet of dense foliage (so that no visual path extends through the foliage) is required to achieve a 5 dBA attenuation of traffic noise. The use of vegetation as a noise barrier should not be considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used to acoustically "soften" intervening ground between a noise source and receiver by increasing ground absorption of sound. Vegetative barriers have been shown to reduce tire noise and other high frequency components of traffic noise. Planting of trees and shrubs is also of aesthetic and psychological value, and may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels may be largely unaffected.

SOUND ABSORBING MATERIALS

Absorptive materials such as fiberglass, foam, cloth, and acoustical tiles are used to reduce reflections or reverberation in closed spaces. Their outdoor use is usually directed toward reducing reflections between parallel noise barriers or other reflective surfaces. Maintenance of absorptive materials used outdoors is difficult because most such materials are easily damaged by sunlight and moisture. Their application as an outdoor noise control tool is limited to cases where the control of reflected noise is critical.

MODEL COMMUNITY NOISE CONTROL ORDINANCE

Chapter 0.00

NOISE CONTROL

Sections:

- 0.00.010 Purposes.
- 0.00.020 Definitions.
- 0.00.030 Noise measurements criteria.
- 0.00.040 Exterior noise standards.
- 0.00.050 Interior noise standards.
- 0.00.060 Noise source exemptions.
- 0.00.070 Air conditioning and refrigeration.
- 0.00.080 Waste and garbage collection equipment.
- 0.00.090 Electrical substations.
- 0.00.100 Warning signs in places of public entertainment.
- 0.00.110 Variances.
- 0.00.120 Violation-Enforcement.

0.00.010 Purposes.

The City Council declares and finds that excessive noise levels are detrimental to the public health, welfare and safety and contrary to the public interest as follows:

- A. By interfering with sleep, communication, relaxation and the full use of one's property.
- B. By contributing to hearing impairment and a wide range of adverse physiological and psychological stress conditions; and
- C. By adversely affecting the value of real property.

It is the intent of this chapter to protect persons from excessive levels of noise within or near a residence, school, church, hospital or public library and to warn persons of the hazards of excessive noise in places of public entertainment.

0.00.020 Definitions.

The following words, phrases and terms as used in this chapter shall have the following meanings:

- A. "Ambient noise level" means the composite of noise from all sources excluding the alleged offensive noise. In this context it represents the normal or existing level of environmental noise at a given location for a specific time of the day or night.
- B. "A weighted sound level" means the sound level in decibels as measured with a sound level meter using the "A" weighted network (scale) at slow meter response. The unit of measurement is referred to herein as dBA.

- C. "Construction" means construction, erection, enlargement, alteration, conversion or movement of any building, structures or land together with any scientific surveys associated therewith.
- D. "Cumulative period" means an additive period of time composed of individual time segments which may be continuous or interrupted.
- E. "Decibel" means a unit for measuring the amplitude of a sound, equal to twenty times the logarithm to the base ten of the ratio of the pressure of the sound measured to the reference pressure, which is twenty micropascals..
- F. "Emergency work" means the use of any machinery, equipment, vehicle, manpower or other activity in a short term effort to protect, or restore safe conditions in the community, or work by private or public utilities when restoring utility service.
- G. "Fixed noise source" means a device or machine which creates sounds while fixed or stationary, including but not limited to residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment.
- H. "Health officer" means the health officer of the county or his duly authorized deputy.
- I. "Hospital" means any building or portion thereof used for the accommodation and medical care of the sick, injured or infirm persons and includes rest homes and nursing homes.
- J. "Impulsive noise" means a noise of short duration, usually less than one second, with an abrupt onset and rapid decay.
- K. "Intruding noise level" means the sound level created, caused, maintained or originating from an alleged offensive source, measured in decibels, at a specified location while the alleged offensive source is in operation.
- L. "Mobile noise source" means any source other than a fixed noise source.
- M. "Noise disturbance" means any sound which violates the quantitative standards set forth in this chapter.
- N. "Residential property" means a parcel of real property which is developed and used either in whole or in part for residential purposes.
- O. "School" means public or private institutions conducting regular academic instruction at preschool, kindergarten, elementary, secondary or collegiate levels.
- P. "Pure tone noise" means any noise which is distinctly audible as a single pitch (frequency) or set of pitches. For the purposes of this ordinance, a pure tone shall exist if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of

the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies of 500 Hz and above and by 8 dB for center frequencies between 160 and 400 Hz and by 15 dB for center frequencies less than or equal to 125 Hz.

- Q. "Sound level meter" means an instrument meeting American National Standard Institute's Standard S1.4-1971 for Type 1 or Type 2 sound level meters or an instrument and the associated recording and analyzing equipment which will provide equivalent data.

0.00.030 Noise Measurement Criteria.

Any noise measurement made pursuant to the provisions of this chapter shall be made with a sound level meter using the "A" weighted network (scale) at slow meter response. Fast meter response shall be used for impulsive type sounds. Calibration of the measurement equipment utilizing an acoustic calibrator certified by its manufacturer shall be performed immediately prior to recording any noise level data.

The exterior noise levels shall be measured within fifty feet of the affected residence, school, hospital, church or public library. Where practical, the microphone shall be positioned three to five feet above the ground and away from reflective surfaces.

The interior noise levels shall be measured within the affected dwelling unit, at points at least four feet from the wall, ceiling or floor nearest the noise source, with windows in the normal seasonal configuration. The reported interior noise level shall be determined by taking the arithmetic average of the readings taken at the various microphone locations.

0.00.040 Exterior Noise Standards.

- A. It is unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by such person which causes the exterior noise level when measured at any affected single- or multiple-family residence, school, hospital, church or public library to exceed the noise level standards as set forth in the following table:

Category	Cumulative Number of minutes in any one-hour time period	Noise Level Standards, dBA		
		Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.	
1	30	55	50	
2	15	60	55	
3	5	65	60	
4	1	70	65	
5	0	75	70	

- B. In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.
- C. Each of the noise level standards specified above shall be reduced by five dB for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.
- D. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards.

0.00.050 Interior Noise Standards.

- A. It is unlawful for any person, at any location within the incorporated area of the city, to operate or cause to be operated with a dwelling unit, any source of sound or to allow the creation of any noise which causes the noise level when measured inside a receiving dwelling unit to exceed the noise level standards as set forth in the following table:

Category	Cumulative Number of minutes in any one-hour time period	Noise Level Standards, dBA		
		Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.	
1	5	55	45	
2	1	60	50	
3	0	65	55	

- B. In the event the measured ambient noise level exceeds the applicable noise level standards in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.
- C. Each of the noise level standards specified above shall be reduced by five dB for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.
- D. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the interior noise standards.

0.00.060 Noise Source Exemptions.

The following activities shall be exempted from the provisions of this chapter.

- A. Activities conducted in public parks, public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events.

- B. Any mechanical device, apparatus or equipment used related to or connected with emergency activities or emergency work.
- C. Noise sources associated with construction, provided such activities do not take place before 6:00 a.m. or after 9:00 p.m. on any day except Saturday or Sunday, or before 7:00 a.m. or after 5:00 p.m. on Saturday or Sunday.
- D. Noise sources associated with the maintenance of residential property provided such activities take place between the hours of 6:00 a.m. and 9:00 p.m. on any day except Saturday or Sunday, or between the hours of 7:00 a.m. and 9:00 p.m. on Saturday or Sunday.
- E. Noise sources associated with a lawful commercial or industrial activity caused by mechanical devices or equipment, including air conditioning or refrigeration systems, installed prior to the effective date of this chapter; that this exemption shall expire 12 months after the effective date of this chapter.
- F. Noise sources associated with the collection of waste or garbage from property devoted to commercial or industrial uses;
- G. Any activity to the extent regulation thereof has been preempted by state or federal law.

0.00.070 Air Conditioning and Refrigeration.

Notwithstanding the provisions of Section 0.00.040 where the intruding noise source when measured as provided in Section 0.00.030 is an air conditioning or refrigeration system or associated equipment, the exterior noise level shall not exceed fifty-five (55) dBA, except where such equipment is exempt from the provisions of this chapter.

0.00.080 Waste and Garbage Collection Equipment.

Notwithstanding the provisions of Section 0.00.040, noise sources associated with the collection of waste or garbage from residential property by persons authorized to engage in such activity, and who are operating truck-mounted loading or compacting equipment, shall not take place before 6:00 a.m. or after 7:00 p.m. and the noise level created by such activities when measured at a distance of fifty fifty feet in an open area shall not exceed the following standards:

1. Eighty-five (85) dBA for equipment in use, purchased or leased within six months from the effective date of this chapter;
2. Eighty (80) dBA for that equipment set forth in subsection D(1) above after five years from the effective date of this chapter.
3. Eighty (80) dBA for new equipment purchased or leased after six months from the effective date of this chapter.
4. Seventy-five (75) dBA for new equipment purchased or leased after thirty-six months from the effective date of this chapter.

0.00.090 Electrical Substations.

Notwithstanding the provisions of Section 0.00.040, noise sources associated with the operation of electrical substations shall not exceed fifty (50) dBA when measured as provided in Section 0.00.030.

0.00.100 Warning signs in places or public entertainment.

It is unlawful for any person to operate or permit the operation or playing of any loudspeaker, musical instrument, motorized racing vehicle, or other source of sound for public entertainment within a building or structure wherein the noise level exceeds ninety-five (95) dBA as determined using the slow response of a sound level meter at any point normally occupied by a customer, without a conspicuous and legible sign stating: "WARNING! SOUND LEVELS WITHIN MAY CAUSE HEARING IMPAIRMENT."

0.00.110 Variances.

- A. The owner or operator of a noise source for which it has been determined violates any of the provisions of this chapter may file an application for variance from strict compliance with any particular provisions of this chapter where such variance will not result in a hazardous condition or a nuisance and strict compliance would be unreasonable in view of all the circumstances. The owner or operator shall set forth all actions taken to comply with such provisions, and the reasons why immediate compliance cannot be achieved. A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership or fixed sources under common ownership on a single property may be combined into one application.
- B. Upon receipt of the application and within thirty days, City staff shall either (1) approve such request in whole or in part, (2) deny the request, or (3) refer the request directly to the City Council for action thereon in accordance with the provisions of this chapter. In the event the variance is approved, reasonable conditions may be imposed which may include restrictions on noise level, noise duration and operating hours, an approved method of achieving compliance and a time schedule for its implementation. The decision of City staff is subject to appeal to the City Council by filing a written appeal not later than fifteen days following the mailing of the decision to the applicant.
- C. Factors which the City staff or City Council must consider shall include but not be limited to the following:
 - 1. Uses of property within the area affected by the noise;
 - 2. Factors related to initiating and completing all remedial work;
 - 3. Age and useful life of the existing noise source;
 - 4. The general public interest, welfare and safety.
- D. The City Council may grant variances from provisions by this chapter subject to such terms, conditions and requirements as may be deemed reasonable to achieve compliance with the provisions and intent of this chapter.

0.00.120 Violation-Enforcement.

The violation of any of the provisions of this chapter shall be an infraction punishable as provided in Section _____ of this code. The provisions of this chapter may also be enforced by an injunction issued out of the superior court. Any violation of the provisions of this chapter shall be deemed to be a public nuisance.

City staff shall enforce the provisions of this chapter. Right of entry for inspection shall be as provided in Section _____ of this code.



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